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The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

No. 2041.—VOL. XLIV.

LONDON, SATURDAY, OCTOBER 3, 1874.

[WITH SUPPLEMENT.] PRICE SIXPENCE.
PER ANNUM, BY POST, £1 4s.

MR. JAMES H. CROFTS, STOCK AND SHARE BROKER,
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
(SUCCESSOR TO JAMES CROFTS).
Established 1842.

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SPECIAL BUSINESS in Flaggstaff, Emma, Sweetland Creek, and Last Chance.
Business transacted in all Mining Shares.
Bankers: City Bank, London; South Cornwall Bank, St. Austell.

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Telegraph, Tramway, and Miscellaneous Shares, and all Securities dealt in on the London Stock Exchange.
Purchases and Sales negotiated in Unmarketable Stocks and Shares.
Specialist Accounts opened for the Fortnightly Settlement.

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15 Ashton, 41s. 25 Eberhardt, £25½. 25 Pennerley, 22s. 6d.
40 Birdseye Creek, £2 8 6. 30 East Caradon, 19s. 6d. 30 Parys Mountain, 8s.
10 Bog, 6s. 9d. 45 East Grenville. 50 Port Nigel, 32s. 6d.
10 Bilson and Crump. 50 Flaggstaff, £23. 100 Port Phillip, 13s. 6d.
40 Bampfyde, £2 6s. 6d. 100 Frontino, 9s. 6d. 20 Prince Patrick.
25 Blue Tent. 40 Glasdale Quarry. 40 Richmond, £2 13s. 9d.
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100 Chantales, 12s. 9d. 10 Great Laxey, £12½. 100 Rookhope, 12s. 6d.
40 Chapel House, £24½. 20 Gunnislake (Clitters). 20 Sweetland Cr., £2 13 9
5 Cape Copper, £28½. 100 Last Chance, 19s. 6d. 120 Silkstone Fall Colliery.
10 Cathedral. 50 Ladywell, £2 17s. 6d. 20 So. Carn Brea, 37s. 6d.
30 Cedar Creek, 27s. 6d. 40 Marke Valley, 21s. 50 South Prince Patrick.
10 Carn Brea, £26½. 10 Minera. 100 Tecoma, 12s. 9d.
25 Chicago (Silver). 70 Malpas, 16s. 15 Tankerville, £7½.
15 Cleve Hill Col., 9s. 100 Malabar, 15s. 9d. 45 Utah, 4s. 6d.
30 Cardiff and Swansea. 50 N. Zealand Kapanga. 5 Van, £22½.
20 Colorado Terrib., £3½. 40 New Quebrada, £23½. 25 Van Consoles, £23½.
2 Dolcoath, £24½. 30 New Sharlston. 15 West Maria, 8s. 6d.
15 Darlington Iron. 30 Old Treburgett, 12s. 9d. 15 Wheel Grenville, £24½
10 East Lovell, £11½. 100 Penstruthal, 11s. 3d. 20 Wheel Uny, 27s. 6d.
40 Emma (Silver), 29s. 200 Penllinmon, 5s. 3d. 100 York Penin., 11s. 3d.
10 East Chiverton. 40 Prince of Wales, 12s. 6d.

W. H. B. is a BUYER of Englefield and Cleve Hill Colliery Shares. Sellers please state number and lowest price.
* Holders wishing to dispose of Shares may avail themselves of the above Medium, free of charge. Particulars of Shares for Insertion (with lowest limits) should be delivered not later than Four P.M. on Fridays.

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Bankers: London and Westminster, and City Bank.

BUYER—
30 Cardiff & Swan, £23½. 50 Gold Run, 8s. 6d. 40 Cleve Hill, 7s. 6d.
10 Bilson & Crump, £10½. 10 Birdseye, £24½. 10 Sweetland Creek.

SELLER—
10 Thorp's Gawber. 10 Whitehaven Iron, £5. 5 Henry Briggs, £26.
10 Bilson & Crump. 50 Cleve Hill, 10s. 30 Tylwyd, 21s.
10 Padeswood Col., £10. 10 Silkstone Fall, £24½. 20 Chapel House, £4.
Thorp's Gawber pay 40 per cent. Bilson and Crump, 30 per cent. These and Glasdale, with Welsh Freehold, will pay well to buy.

BUSINESS in Tankerville, Frontino and Bolivia, Javall, Eberhardt, Nant-y-Glo, Newgate Chemical, Central Swedish Iron, and others.

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(Late WARD and LITTLEWOOD).

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MR. THOMAS THOMPSON, JUN., 1, PALMERSTON BUILDINGS, BISHOPSGATE STREET, LONDON, E.C.
Some valuable hints as to the purchase of mining shares will be found in Mr. Thompson's "Investment Circular" for October now ready, post free, price 6d.

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(Established 24 years.)
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SELL THE FOLLOWING SHARES, free of commission:—
10 Bampfyde, £2 7s. 6d. 5 East Lovell, £11½. 5 Roman Grav., £13 18 9
10 Birdseye Cr., £2 10s. 30 Flaggstaff, £23 1s. 3. 2 St. Ives Consoles, £9 15 0
10 Bilson & Crump, £10½. 35 Gwrtton, 10s. 10 Sweetland Cr., £2 13 9
10 Chantales, 12s. 9d. 30 Ladywell, £2 18s. 9d. 5 Tankerville, £7 10s.
10 Eberhardt, £25½. 25 Marke Valley, 22s. 3d. 10 Unity Wood, 6s. 6d.
10 Emma, £11s. 50 Pennerley, £1 11s. 3d. 30 Van Consoles, £2 4s. 6d.
10 East Van, 13s. 20 Richmond, £2 13s. 6d. 5 Wheel Kitty, £5 7s. 6.
SPECIAL BUSINESS in the LIVE STOCK INSURANCE COMPANY OF GREAT BRITAIN (Limited).

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLLIERIES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application. In addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

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Established 1857.
The following are the latest prices at which business could be done. Holders of mining shares desiring a market quotation for their stock can have their application answered in this list if received not later than Four P.M. on Fridays:—

Buyers.	Sellers.	Buyers.	Sellers.
Bampfyde, £2 2½	£2 2½	Prince of Wales, 10s.	12s. 6d.
Birdseye Creek, 23½	23½	Richmond, £6½	£6½
Carn Brea, 54	50	Roman Gravels, 13½	14
Chapel House Colliery, 33½	34	Rosewall Hill, 5s.	7s.
Chantales, 11s.	12s.	St. Ives Consoles, 8	10
Clee Hill Colliery, 8s. 6d.	9s. 6d.	South Carn Brea, 1½	2
Cook's Kitchen, 10	11	South Condurrow, 3	3½
Devon Great Consoles, 10s.	15s.	South Roman Gravels, 12s. 6d.	15s.
Ding Dong, 45½	47½	South Tolarne, 5s.	7s. 6d.
Dolcoath, 45	47	Sweetland Creek, 2½	2½
Eberhardt, 5	5½	Tankerville, 7	7½
East Lovell, 10½	11½	Tecoma, 6s.	8s.
East Van, 10s.	12s. 6d.	Tincroft, 30	31
Emma, 1½	1½	Tylwyd, 15s.	20s.
Flaggstaff, 23½	24	Unity Wood, 2s. 6d.	7s. 6d.
Gawton (all paid), 3½	3½	Utah, 2s.	4s.
Ladywell, 29½	29½	Van Consoles, 20	22½
Marke Valley, 20s.	22s.	West Chiverton, 2½	2½
New Rosewarne, 7s.	9s.	West Tolgus, 69	71
Parys Mountain, 1½	1½	Wheel Grenville, 4	4½
Penhalls, 13½	13½	Wh. Kitty (St. Agnes), 5½	5½
Pennerley, 13½	13½	Wheel Uny, 1	1½
Penstruthal, 10s.	12s.		

* Good to buy for a rise in market value.

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30 Almada, 12s. 6d.	50 Last Chance, 12s. 9d.	60 Rica, 3s. 3d.
25 Bampfyde, £2½	50 Lovell, £1½	20 Russia Copper, £2½
10 Bog, 6s. 3d.	40 Marke Valley, £1	10 Roman Gravels, £14
25 Birdseye Creek, £2½	50 Mid-Moonta, £3	100 Rossa Grande, 1s.
20 Carn Brea, £24½	60 Melindur, £3½	40 Sierra Buttes, £2
20 Cedar Creek, £1½	5 Minera, £15	50 South Aurora, 8s. 6d.
30 Chapel House, £4	50 Malabar, 12s. 6d.	20 So. Carn Brea, £2
20 Cardiff & Swan, £3½	70 Malpas, 11s. 6d.	25 So. Roman Gra., 14s. 6
50 Cathlamet, 17s. 6d.	60 Medlyn Moor, 12s. 9d.	20 Tankerville, £7
2 Dolcoath, £4½	30 New Quebrada, £2½	8 Thornhill Reef, 15s.
30 Emma, £1½	80 New Pacific, 7s. 3d.	10 Thorp's Gawber, £15
10 East Lovell, £11	90 New Sharlston, £8	30 Tecoma, 10s. 9d.
30 East Grenville, 8s. 9d.	50 Old Treburgett, 13s. 9d	30 Van Consoles, £24½
20 East Caradon, £1	50 Old Batholes, 5s. 3d.	50 West Chiverton, £1½
50 East Basset, £1	50 Plynlimmon, 5s.	30 Wheel Uny, £1½
50 Flaggstaff, £3	50 Pennerley, £1½	70 West Maria, 7s. 6d.
50 Great Laxey, £11½	30 Providence, £2	10 West Basset, £3½
35 Green Hart, £5	30 Penstruthal, 10s. 6d.	10 Wheel Kitty, £5½
50 Glasgow Caradon, £1½	20 Port Phillip, 11s. 9d.	25 West Tankerville, £1
20 Gt. West Van, £1	50 Peden-a-drea, £8	25 Wh. Grenville, £4½
20 Herodsfoot, £3½	25 Richmond, £6½	30 Wheel Emma, £2
5 Ladywell, £23½	45 Rosewall Hill, 5s. 3d.	40 Wheel Jane, £2½

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50 Bampfyde, 50s.	50 Ladywell.	35 So. Carn Brea, 30s. 3d
20 Bilson and Crump, £7 13s. 9d.	25 Last Chance, 17s.	40 So. Prince Patrick.
10 Birdseye, 48s. 9d.	50 Lovell (Tin), 16s.	60 So. Rom. Grav., 16s
50 Bog, 7s. 6d.	65 Malabar, 16s.	30 Sweetland, £2 13s. 9d.
10 Blue Tent.	50 Malpas, 16s.	45 Thornhill Reef, 9s.
30 Cardiff & Swan, £3½	50 Marke Valley, 19s. 6d.	10 Thorp's Gawber, £15½
75 Chapel House Col., £4½	100 New Sharlston, £29½	100 Tecoma 8s. 9d.
10 Chantales, 12s. 9d.	40 New Quebrada, £3 5 9	50 Tylwyd, 20s. 9d.
70 Cedar Creek, 28s.	50 Old Batholes, 5s.	25 Tankerville, £7½
60 Clee Hill Col., 9s. 3d.	75 Old Treburgett, 13s. 6d	4 Tincroft, £20½
5 Cook's Kitchen, £10½	90 Parys Mount, 8s.	50 Uni. Bituminous, 11s.
3 Dolcoath, £46½	40 Pennerley, 32s.	50 Utah, 6s.
100 Don Pedro.	100 Penstruthal.	5 Van, £23.
40 East Grenville.	60 Plynlimmon, 5s. 9d.	70 Van Consoles, £24½
85 Eberhardt, £5 3s. 9d.	130 Port Phillip, 13s. 3d.	40 Welsh Freehold, £3.
50 Ebbw Vale.	100 Prince of Wales.	30 W. Tankerville, 20s. 6d
30 Emma, 29s. 6d.	30 Prince Patrick.	80 West Maria, 7s. 6d.
45 Flaggstaff, £3.	30 Roman Gravels, £14½	50 West Mostyn.
100 Frontino, 9s. 6d.	55 Rookhope, 11s.	35 West Esgrail Lye, 40s.
45 Glasdale Quarry.	400 Rossa Grande, 1s. 3d.	30 West Gwrtton, 22s. 6d
100 Gold Run, 12s.	75 Rica, 7s.	25 Wheel Grenville, £4½
45 Gwrtton.	25 Richmond, £6 13s.	10 Wheel Kitty, £5½
30 Hingston, 24s.	20 Russia Copper.	10 W. Chiverton, 45s.
70 Javall.	40 Silkstone Fall, 4s.	80 York Peninsula, 11s.
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Mines inspected and reported upon at a moderate charge.

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MR. A. W. THOMAS will visit the district of HALKYN and HOLYWELL during the coming week, and will afterwards be prepared to advise respecting the various mines now being brought before the public.

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Emma.	West Wheel Gorland.	Malpas.
Flaggstaff.	Gold Run.	Buller.
Kitty (St. Agnes).	Pacific.	Rica.
Cedar Creek.	Malabar.	West Esgrail Lye.

Parties wishing to purchase or sell in the foregoing are requested to make early application. PENNINGTON AND CO., SWORN BROKERS.

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"The statistics and analyses here given represent both labour and time which it is difficult to estimate. * * The work will be eagerly sought for by Students in Science and Art, as well as by practical Workers in Metals."—*Colliery Guardian*.

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Registered under the Companies Act, 1862, whereby the liability of the shareholders is limited to the amount of their shares.

Capital £25,000, in 25,000 Shares of £1 each.

PAYABLE—5s. per share on application; 5s. on allotment; 5s. in two months; and 5s. in four months after allotment.

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PROSPECTUS.

This company is formed for the purpose of still further opening out and extending those valuable properties, consisting of the Great Rake, Little Rake, and Young Bonny Lad Mines, also the Harbo Rake, Flats, and Lums titles, and the same have, by agreement of contract and by deed, been duly sold and transferred to this company, and registered in the Bankruptcy Court of the Wapentake of Wirksworth under the Derbyshire Mining and Mineral Court Act of 1852 (15 and 16 Vic., cap. 13).

This mining site is situated near Brassington, in the Soko and Wapentake of Wirksworth, Derbyshire, and is subject to the Mineral and Mining Customs Act of 1852.

From close inspection of the Great Rake Mine, it is evident that there has been ore obtained in immense quantities, and of a superior quality, but from the very imperfect and difficult method adopted for raising it to the surface the value was thereby materially decreased; the disadvantage will be considerably overcome by the introduction of more improved lifting apparatus, and by the employment of means more in accordance with modern engineering.

The Great Rake Mine contains, in addition to its valuable lead deposit, a most extensive and apparently unlimited vein of calk and barytes, which bears a good commercial value, and is in great demand; there are also hundreds of tons of small vein ore lying upon the surface, which has been imperfectly dressed by the old workers, and it is calculated if properly crushed and washed this would more than defray the cost of the necessary machinery.

The Little Rake Mine is adjoining the Great Rake, and is a continuation of the same vein. There is a shaft sunk to 18 fms., and from all appearances it is rich in lead ore.

Young Bonny Lad Mine is a further continuation of Little Rake, and in addition to its lead ore has a rich deposit of calamine, also a fine vein of barytes. The directors have commenced sinking a shaft on this mine, and when at the proper depth intend to drive carriage ways for working both the Great Rake and Little Rake Mines, and some valuable ore has been met with in course of sinking.

The Harbo Rake Mines, Lums, &c., are situated north-easterly of the other mineral titles, and about ½ mile therefrom. They command an extensive range of more than 30 acres (or 370 yards) in length, and are in close proximity to the Bald Meer and Charratt old productive mines. The Harbo Rake and Lums were worked with great success by the former proprietors, and the result from working at small depths below the surface realised large quantities of excellent blue, white ore, and linette, or green ore. There are immense mounds or heaps left on the surface by the old miners that would be most remunerative if properly crushed and washing machinery were employed to raise the ore to the surface. These mines being bounded nearly their entire length by the High Peak Railway, offers facilities for the transit of their minerals which are seldom met with in lead mines in this country.

The vendors have agreed to sell the property for 8000 shares of £1 each, fully paid-up. The directors have decided to issue 2000 shares for subscription. The vendors have applied for and been allotted 235 shares.

It is estimated that the first issue of shares will realise sufficient capital to procure the requisite machinery and cost of working until the mines are remunerative. The mines are purchased on most advantageous terms, and the vendors accept the whole of the purchase-money in fully paid-up shares.

Power is reserved by the directors to issue the remaining 15,000 shares, or any less number.

Copy of Memorandum of Association, contract, and deeds relating to all the above-mentioned mines, may be seen at the offices of the company upon application to the Secretary.

The Secretary is empowered to grant tickets to view the mines to persons desirous of becoming shareholders in this company.

Applications for shares to be made on the form accompanying the prospectus, and sent with the deposit money either to the bankers or Secretary of the company.

In the event of no allotment being made, the deposit paid will be returned with out deduction.

MANAGER'S REPORT OF THE WORKS AT THE GREAT RAKE LEAD MINES, BRASSINGTON, DERBYSHIRE.

No. 1: I have opened out the new climbing roads to the depth of 80 fms.; at this level I have also opened a tramroad to the length of 60 yards, which shows a very fine vein of calk, interfused with some good samples of lead ore, which I have brought up to the surface ready for the washing and crushing apparatus. This drive is of a most interesting character, as in about 4 fathoms further west it will intersect another pipe vein, and at this point I expect to get a quantity of lead ore; this new wagon gate is running west.—No. 2: Proceeding from the engine-shaft in an easterly direction, at the depth of 40 fathoms, this point leads to what is called the Hard Hole; here we have also a good work of lead ore.—No. 3: From this point to the top wagon gate, which is about 45 fathoms in depth, we have a quantity of good stuff in both old and new workings, which has fallen down and is ready for drawing out for washing.—No. 4: The next point is called the Chain Turn; here we have also a good work of lead, and the vein runs soft and is easy to work. No. 5 is the wagon gate (90 yards long), which is laid with tram way and ready for use.—No. 6: Leading out of this gate is the Ladder Hole; this vein contains fine lead ore at the depth of 55 fathoms.—No. 7 is the Spar Turn, this also is another fine vein, well interfused with spar and lead ore.—No. 8: This is the top of the limestone; at this carriage it is flat-works, and the vein is hard and requires blasting down; this vein is very wide, and well interfused with calk and lead ore; at this point it yielded some of the largest lumps of lead ore found in Brassington; there have been solid lumps of ore which weighed over 1 ton.—No. 9: This is at the depth of 70 fathoms, and is called the Shale vein; here we have lead ore in four or five different points. I can point out many more places of lead ore in this part of the mine which will pay well for working. This is a mine well worth personal inspection, as the new wagon gate from the Young Bonny Lad shaft will open out a many cross-veins. The new shaft is sunk about 17 fms., and we are getting ore in course of sinking. This fine mine is only short of good roads to bring the lead to the surface. As soon as the new shaft is sunk, and the wagon gate driven up to the works, the mine will be worked to much greater advantage than formerly.—Harbo Rake, Flats, and Lums: This mine for the present we have discontinued working for the purpose of concentrating our force at the new shaft, on the Great Rake. In the shaft we were working at we found good samples of ore; this shaft wants continuing down to limestone carriage, when there is every probability it will be a remunerative concern. It would be advisable to erect machinery on this mine for the purpose of washing and dressing the immense mounds of reinfused got by the former workers.

WILLIAM FERN.

LABORATORY AND ASSAY OFFICE,

25, FINSBURY PLACE, E.C.

For the CONVENIENCE OF PARTIES having CITY ENGAGEMENTS, MR WHITE is about to ESTABLISH EVENING CLASSES, commencing at Six P.M.

Terms on enquiry as above.

MINING PROSPECTUSES AND ANNOUNCEMENTS OF

PUBLIC COMPANIES should be inserted in the BARNSTABLE TIMES, published every Tuesday, and in the DEVON POST, published every Saturday, as these papers circulate largely throughout Devon and Cornwall, where many thousands of investors reside. Legal and Public Companies' advertisements, 6d. a line each insertion; Trade and Auctions, 4d. a line; Wanted, &c., 20 words, 1s.

Published by J.B. JONES, Bouthport-street, Barnstable, Devon to whom all orders, by post or telegraph should be sent.

THE STEPHEN ROE DIFFUSIVE DAYLIGHT REFLECTOR COMPANY

(LIMITED).

To be incorporated under the Companies Acts, 25th and 26th Victoria, chapters 8th, 9th, and 30th, and 3rd Victoria, chapter 18th.

Capital £5000, with power to increase, in 2000 Shares of £2 10s. each.

10s. to be paid on application and 10s. on allotment. Future calls of 10s. per share when required by the directors. Not less than two months' notice of each call to be given by the Secretary. Each shareholder will have the option of paying up all his share capital at any time, upon which 7½ per cent. interest will be allowed.

CURTAILED PROSPECTUS.

The object of this company is to purchase and work Roe's Diffusive Daylight Reflector in the large cities and towns in Great Britain and Ireland, and it promises to be the most successful undertaking ever offered to the public, as it is beyond all doubt the most perfect economiser and distributor of daylight heretofore brought before the commercial community. It is capable of being extensively carried out with a small capital, and there is no doubt it will return to investors from the very beginning of their operations as a company at least 30 per cent. per annum interest, and when fully developed double that amount may fairly be expected, whilst when looked at from a sanitary point of view it will enlist the support of sanitary reformers, as it is hoped it will materially reduce the death rate in large and closely-built towns; for it is a well-known medical axiom that "light is as essential to health as pure air," and the increasing height of our buildings, consequent upon the increased value of land, really makes any invention for obtaining light a valuable property.

Roe's Daylight Diffusive Reflector was first brought out by Mr. Roe in America, and has been worked extensively in the States, and is now for the first time offered to the public of Great Britain. It has many advantages over any other daylight reflector ever brought out:—

1st.—It is cheap, effective, and easily applied to almost any window, however situated, where the rays of daylight penetrate.

2nd.—By its peculiar construction it will take hold of and diffuse the rays of daylight at any angle, and at all periods of the day equally alike over the space or surface required to be lighted.

3rd.—It diffuses the light in a soft and subdued tone, softens its effect upon the vision, and completely does away with that harsh glare, so injurious to the sight, so common in other reflectors.

4th.—In case of accident it is easily repaired at a very low cost, the metal being pure, very flexible, and laid upon a firm surface. It is also very durable, and will, with reasonable care, last many years, a desideratum only attained by this invention.

Applications for shares must be made to the Secretary, at the temporary office of the company, 60, Market-street, Manchester, from whom any information required may be obtained.

43, BISHOPSGATE-STREET, LONDON, E.C.

MESSRS. TREDINNICK AND CO., DEALERS IN STOCKS, BONDS, DEBENTURES, SHARES, AND MISCELLANEOUS SECURITIES.

have SPECIAL BUSINESS to transact as BUYERS and SELLERS at the market prices of the day in all of the undermentioned properties.

The prices annexed show the range in value during the month of August last. The Bonds and Stocks are fully paid-up, and hence are free from all contingent calls. The amount called up on shares show the sum upon which the dividends are paid; but, in many instances, there are outstanding liabilities, and which can be ascertained upon personal application to Messrs. TREDINNICK AND CO. The closing prices of Thursday last are also given; but, as these are subject to hourly fluctuations, they can only be regarded as a guide to intending investors, as well as those realising. It will be seen that the interest and dividends materially differ, and it must be admitted that the merits of the several Stocks, Shares, and undertakings are equally wide apart.

In estimating the value of particular Stocks to investors the premiums at which they sell must be taken into account, and varied desiderata and contingent elements ventilated. All information as to the value of the property can be obtained upon application at 43, Bishopsgate-street, either by letter or personally, and free of charge, by all having business to transact, or in anticipation thereof.

BRITISH, COLONIAL, AND FOREIGN BONDS.

Name.	Range of prices, Sept.		Closing prices, Annual		Interest.
	Highest.	Lowest.	Oct. 2.		
Argentine, 6 per cent., 1866-8	93	94	95 1/2	.....	6 1/2 p. c.
Australian, 5 per cent., 1867	108	108 1/2	107	.....	4 1/2
Bolivian, 6 per cent., 1872	95 1/2	92	93	.....	18
Colombian, 6 per cent., 1863	95	95	93	.....	6 1/2
Costa Rica, 6 per cent., 1871	27	24	26	.....	23 1-16
Egyptian, 7 per cent., 1873	78	73 1/2	75 1/2	.....	9
Egyptian, 9 per cent., 1867	106	103	105	.....	8 7-16
Egyptian Khedive, 7 per cent., 1870	80 1/2	78	79	.....	9
French, 3 and 5 per cent.	64 1/2	63	65	.....	4 11-16
	102 1/2	98 1/2	102	.....	4 15-16
Guatemala, 6 per cent., 1869	—	—	47 1/2	.....	13
Italian, 5 per cent., 1867	67 1/2	66	67 1/2	.....	7 1/2
Japanese, 5 per cent., 1870	103	103	103	.....	7 1/2
Japanese, 7 per cent., 1873	95	90	94	.....	7 1-16
Mexican, 3 per cent., 1870	10 1/2	10 1/2	10 1/2	.....	—
Peruvian, 6 per cent., 1870	74	68	72 1/2	.....	8 1/2
Peruvian, 5 per cent. Consols	61 1/2	56	60 1/2	.....	8 1/2
Spanish, 3 per cent.	18 1/2	17 1/2	18 1/2	.....	—
Turkish, 5 per cent., 1865	47 1/2	43 1/2	47	.....	10 1/2
Turkish, 9 per cent. Treasury Bonds, A.	88	82	87 1/2	.....	10 1/2
United States, and all other Stocks and Bonds.					

JOINT-STOCK BANKS.

JOINT-STOCK BANKS.					
Name.	Range of prices, Sept.		Closing price, Oct. 2.	Called up, 1873-74.	Dividend
	Highest.	Lowest.			
London and Westminster ..	74½	73½	77	20	24 s. t.
London Joint Stock	50½	49½	50	15	25 "
London and County	63	60½	62½	20	20 "
Union of London	47½	45	47	15 p. c.	20 "
National Provincial	84	80	85	21	26 "
Bank of England, and all other Banks dealt in on the London or Provincial Exchanges.					

INSURANCE COMPANIES.

ASSURANCE COMPANIES.					
Name.	Amount paid.	Range of prices, Sept.		Closing prices, Oct. 2.	Div. annually.
		Highest.	Lowest.		p. ct.
Caledonian Fire and Life	10	—	—	63 1/2	30
Church of England Life	2	—	—	3 11-16	40
County Fire	10	10	10	85	40
Equity and Law Life	6	—	—	9 1/2	10
Lancashire Fire and Life	2	4	11-16	4 1/2	15
Law Union Fire and Life	11s. 6d.	2 1/2	2	2 1/2	12
London and Prov. Marine	2	2 1/2	3	2 1/2	20
Maritime	13	47	43	43	11 1/2
Ocean Marine	5	10 1/2	9	9 1/2	10
Rock Life	108	8 1/2	8 1/2	8 1/2	10
Union Fire and Life	20	—	—	300	7 1/2

MISCELLANEOUS.

MISCELLANEOUS.						
Name.	Amount paid.	Range of prices, Sept.		Closing price, Div.	Oct. 2.	annually.
		Highest.	Lowest.			
Aberdeen Gas.....	10	2 1/2	—	—	6	10 p. ct.
Anglo-Mexican Mine.....	10	—	6 1/2	5 1/2	—	—
Berlin Waterworks.....	10	—	—	—	13	13 1/2
Birmingham Old Union Mill.....	1	3 1/2	3	3 1/2	—	25
Birmingham New Union Mill.....	1	5 1/2	4 1/2	5	—	30
Bolekov Vaughan and Co.....	35	58 1/2	54 1/2	55	—	26 1/2
Brit. India Steam Nav. (L.).....	60	94	90	95	—	15
British Shipowners (L.).....	7 1/2	10 1/2	10 1/2	10 1/2	—	15
Charlton Ironworks (L.).....	40	35	—	—	—	12 1/2
Midland Iron (L.).....	5	12	10 1/2	10 1/2	—	30
Midland Wagon.....	50	98	88	89	—	15
Hooper's Telegr. Works (L.).....	10	12 1/2	12	12 1/2	—	15
Royal Mail Steam Packet.....	80	60	78	84	—	12 1/2
Sub-Marine Telegraph.....	200	200	220	205	—	16 1/2
Telegraph Construction (L.).....	13	20 1/2	20	20 1/2	—	40 & 10
Warrington Wagon (L.).....	10	14	—	—	—	10
Yorkshire Rail. Wagon (L.).....	10	15	14 1/2	15	—	10 1/2
York Street Flax Spinning.....	11	25	—	25	—	13

British and Foreign Mines of all descriptions Bought and Sold, or Exchanged into Foreign or Colonial Bonds, Joint-Stock Banks, Railways, or Miscellaneous

Stocks and Shares, paying dividends ranging from 10 up to 20, and even 30 and 40 per cent. on capital called up.

SPECIAL BUSINESS in the subjoined Mines:—Carn Brea, East Pool, Great Laxey, Roman Gravel, Dolcoath, South Caradon, Tankerville, Tincroft, Trawack, St. Agnes Consols, Kitty, Van Consols, Gobbett, and others. Sellers must allow time to negotiate sales of Cornish Tin Mines, as prices rule low, the tone of the demand is depressed and drooping, while the exports from Australia are likely to increase.

Mr. RICHARD TREDINNICK, Consulting Engineer, has been forty years practically associated with mining, and he advises all holders of shares to ascertain at once the nature, character, and promise of those they possess.

Finance of all kinds effected by Messrs. TREDINNICK and Co., and every attention and information afforded upon application at their offices, 43, Bishopsgate-street, London, E.C.

THE TRUE SOLAR SYSTEM.

An ingeniously constructed and readily intelligible model is this year exhibited in the scientific inventions department of the London International Exhibition, by Mr. JAMES H. MILBERG, illustrative of his theory of the meandering orbits of the true solar system. He maintains that there is no such thing as one central sun, but that our sun is the first, then there is another unknown body, and so we travel on forever in meandering orbits, attracted by still greater bodies. He claims that in this way he can explain what never yet has been explained—the tangent power and tangent motion. He remarks that we believe in the endlessness of space and in other infinite solar systems, and, therefore, can with equal correctness believe that the sun does not stand still, and that the earth does not move in tangential orbits round the sun, but on the contrary. We must come, he thinks, to the conviction that the sun is attracted by an infinitely larger body, and, instead of standing still, he moves forward in an almost straight line, that the earth must move round the sun in a serpentine course, in the same manner that the moon moves round the earth; that one body cannot interrupt the other, because a larger body perpetually prevents the smaller one from doing so, and we must come to this conclusion because our whole solar system moves forward in nearly straight lines.

The sun is represented by Mr. Milberg as a large ball, moving in a nearly straight line, part of its orbit, across the middle of the model, the sun being followed by Mercury, who travels in the nearest meandering orbit. It takes Mercury about three months to travel round the sun, consequently he accomplishes this journey four times in one year; whilst the sun travels on in an almost straight line Mercury moves like a pendulum. He hurries past the sun, attains his aphelion, and then his course is attracted and his speed diminished by the sun passing over to the opposite side; he gradually stays behind, arrives in his perihelion, where he is once more attracted by the sun and the unknown body, his speed is then again accelerated, he passes into his perihelion, and is once more hurried past the sun. The space which Mercury or any other planet has travelled over in one year is the same which the sun has accomplished, only that the planet by his pendulum-like motion has gone over more ground in the same amount of time.

The second planet is Venus, which travels round the sun in the same way, and in about seven months and a half. Then comes the third planet, the Earth with her moon, which make the journey round the sun in one year. Then follows Mars, who accomplishes his round in 23 months, whereupon the minor planets—Vesta, Juno, Pallas, Ceres, &c.—called asteroids, follow, which require four years for their time of rotation. Jupiter with his four moons, which travel round him in meandering orbits, comes next; his revolution requires 11 years and 10 months. Then follows Saturn, with his ring and his eight moons; he goes round the sun in 29 years and five months; next comes Uranus, with six moons, who requires 83 years for his journey, and last of all Neptunes with two moons, who takes 165 years to get round the sun.

The theory enunciated by Mr. Milberg has at least the recommendation of plausibility, and of applying equally to planets, comets, and fixed stars, in proof of which he shows the orbit of Encke's comet, which attains his perihelion between the orbits of the sun and of Mercury, and his aphelion between Mars and Jupiter; his time of rotation takes about three years and a third. He has also shown Biela's comet, which reaches his perihelion between the earth and Venus, and his aphelion between Jupiter and Saturn; he travels round the sun in about seven years. Although the theory is one which, of course, cannot be adopted without mature consideration and strict confirmatory tests, it is certainly worthy of investigation.

ECONOMIC AND HEALTHFUL FIREPLACES.—For many years past the utmost attention has been given to the designing and manufacturing of fireplaces, and of various forms of warming and cooking apparatus, by Messrs. Edwards and Son, of Great Marlborough-street; and in reply to the appeal of the Council of the Society of Arts, they have just submitted, under the title of "Improved Fireplaces," a short account of certain suggestions which they offer for economising fuel and more effectually warming apartments. They remark that, on a careful consideration of the various improvements which have at one time and another been suggested, it appears that in all improved fireplaces constructed in future provision should be made for the admission of fresh air from an external source to the neighbourhood of the fireplace, the fire should burn for a much longer period than we are accustomed to without attention, and smoke should be in a great measure prevented. Messrs. Edwards and Son are satisfied from long experience that the first point is one of extreme importance, because as long as large quantities of air pass away by open chimneys, and a fresh supply is not given in sufficient quantity and in a suitable mode, we must be exposed to the evils of constant currents from doors and windows; a tendency to closeness, particularly in small rooms; of the smoke sometimes not being carried away effectually; and of down currents in chimneys, whether in actual use or not, bringing with them minute particles of soot and dust, which are deposited on the furniture. By means of chromo-lithography Messrs. Edwards and Son's arrangements for utilising every particle of heat, and at the same time securing abundance of ventilation to ensure the healthfulness of the apartment in which their improved fireplaces are used, are clearly shown. The designs are at once quaint and attractive, and carefully adapted to the requirements of the cottage or the mansion—one showing a fireplace having a raised hearth, with fender, curb, and pedestals for admission of fresh air being admirably adapted for the latter, very elegant; whilst their working man's oven and copper, with steamer for cooking, is an apparatus which can be cheaply and quickly erected, is vastly superior to a kitchener, and is in every respect worthy the attention of all proposing to construct cottages for workmen. The pamphlet, which is published by Messrs. Longman, is well worthy of careful study and consideration.

TIPPING COAL.—Mr. G. FOWLER, of Basford Hall, Nottingham, has patented some improvements in apparatus for tipping coal. The patentee employs a common side tippler, provided with two rings, one rotating upon a fixed centre, the other rolling upon carrying wheels; the lower half of the tippler is partly surrounded by a fixed casing, one end of which is hinged and provided with balanced levers and suitable bearings, so as to act as a door or drop.

STEAM AND AIR ENGINES.—Mr. J. HARPER, of Clinton Mills, British Columbia, has patented some improvements in steam and air engines. He writes—"My said invention consists in superheating ordinary steam at the instant of putting it under the piston of a steam engine, so that the full value of the power developed by superheating it will be obtained in driving the piston. To do this I construct an engine of a peculiar style, which is at once compact and cheap, and which can be run with very little expense for fuel."

PUMPS.—Mr. A. V. NEWTON has patented (for Messrs. W. J. Silvert and G. Attwood, of Salt Lake City) an improvement in pumps. The invention consists in a valve box fitted to turn on or around its axis within the pump casing or chamber thereof, and in an annular eccentric or other suitably shaped passage in said chamber or case and around the valve box, whereby in all positions of the pump a free communication is established with the under or inner side of the valve, whilst its upper or opposite side is closed to such communication.

HOLLOWAY'S PILLS.—THE LIVER, THE STOMACH, AND THEIR AFFECTIONS.—Alterations of temperature, muggy weather, a troubled mind, sedentary habits, excesses at the table, and a gay, reckless mode of life exert the most deleterious influence over the liver and stomach. When once these organs are fairly out of order great inroads are quickly made on the general state of the health; and constipation, which lessens the aid of two of its noblest organs, soon gives way, and diseases quickly follow, from which, if neglected, the worst consequences will inevitably result. If a course of

Original Correspondence.

A PILGRIMAGE TO ST. GOTHARD—No. I.

Pilgrimages prove so enjoyable, and are becoming so fashionable, that there can be no reason for confining them to any particular class; with a desire, therefore, to participate in the pastime, such as it now is, with the advantage of well-appointed mail services on the railways, and large and commodious steamers for crossing the Channel, we determined on a technical pilgrimage to St. Gothard, although we certainly know less of the history and genealogy of the saint than of St. Edmund of Canterbury, or the other celebrity whose shrine was visited last year, but whose name we cannot at present recollect. Now, in making a pilgrimage to St. Gothard one naturally thinks upon starting from London that at least some little punishment will have to be endured in reaching the French coast, but in this case the peas were doubly boiled, for the sea was smooth as a tranquil lake, the stars shone brilliantly, and even those who had never before smelled salt water enjoyed the trip, and walked on shore at Calais in 95 minutes after leaving Dover. As the route of the Northern of France Railway is through a country not brightly lit by very interesting scenery, and as the stars were not sufficiently powerful to illumine a distant landscape, we did what we considered the most sensible thing—slept out the journey to Paris, and were thus refreshed, and ready for a day's enjoyment, and to make a few business calls in that city. In the same way we arranged to leave Paris by the Eastern Railway at 8 o'clock in the evening again, and, after satisfying the German officials at Altmünster that we had nothing liable to duty, reached Basel (Basle) about 10 o'clock the following morning, proceeding after a few minutes rest to Lucerne, so as to catch the 2 o'clock boat, and enjoy four hours or so on the lovely Vierwaldstättersee, or Lac des Quatre Cantons (Lake Lucerne). Reaching Flüelen at about 6 o'clock, and having about 20 minutes ride to the Hotel de la Clef d'Or, dinner was particularly acceptable, but as the cuisine of the house is excellent a good appetite was not at all objectionable. As we have a little rest here, we may avail ourselves of the opportunity of saying a few words connected with scientific research in the district.

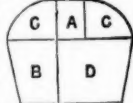
With reference to the geology of the Alps, a very interesting account was supplied by Mr. E. Desor, of Neuchâtel, to a former president of the Alpine Club—Mr. John Ball, F.L.S., &c.—and in it he remarks that Ebel, and the earliest geologists and geographers saw in the Alps a series of parallel ranges, arranged in the order of their height, the loftiest occupying the centre of the chain, and forming the watershed. The central range was, on account of its position, assumed to be the most ancient, and there it was thought natural to find granite, syenite, and gneiss, while the outer ranges were believed to be formed of limestone, sandstone, and other sedimentary deposits. The results of modern enquiry have not justified this opinion. It is true that the higher peaks of the Alps are formed of crystalline rocks. Mont Blanc is composed of the protogine form of granite, Monte Rosa and the Jungfrau of gneiss and mica schist, the Dent Blanche of talcose granite; but it is an error to suppose that all the crystalline masses are connected with lofty peaks, or that none of the higher summits are formed of sedimentary rocks. The Eiger and Wetterhorn, which are counted among the higher peaks, are formed of secondary limestone, and the same holds good of many other prominent mountains. To the modern Swiss geologists, he continues, belongs the credit of having ascertained the real order of succession of the strata, and the general plan of structure which prevails throughout the entire chain. Mr. Desor, who holds a foremost rank amongst Alpine geologists, recognises the existence in the Alps of a series of groups, each with its crystalline centre, sometimes parallel to each other, sometimes arranged like the squares of a chessboard. To form a correct idea of the relations between the crystalline masses and the troughs, the former may be considered as islets arising in the midst of a level plain. In the process of upheaval these islets have gradually assumed greater prominence, driving back on each side the deposits through which they have forced their way, tilting up these overlying strata, and not unfrequently reversing their original order of position. Thus has originated what geologists have called the fan structure, traceable in many of the crystalline groups.

Considering the extent of the district occupied by the Alps, and the comparatively limited opportunities of investigating their geological characteristics, it is not surprising that different opinions are held with respect to the origin of the crystalline centres. The groups of the Finsteraarhorn and the St. Gothard are mainly composed of stratified granite. Between this granite and gneiss the transition is gradual and continuous, the gneiss passing insensibly into mica slate and talcose slate, while these in their turn are closely connected with certain sedimentary slates and sandstones. One of the other deposits once thought undoubtedly igneous have been proved to be altered sedimentary rocks. Thus, the schists of Cassina, in the Grisons, having all the external character of mica slate, have been proved to be of sedimentary origin, and blemishes have been found in the mica schists of the Furka. The result is that the igneous nature of most of the crystalline rocks of the Alps is questioned, with the exception of the porphyries and porphyritic granites of the south side of the chain, and geologists include in the series of metamorphic rocks, not only the mica schists and gneiss, but the semi-stratified granite of the St. Gothard, and the so-called protogine granite of Mont Blanc. Mr. Desor explains that different conditions have prevailed in the central parts of the Alpine chain, and especially in the Swiss, Piedmontese, and French Alps. The process of upheaval has there been accomplished by more energetic agencies, acting on many neighbouring points. Intense and concentrated forces have operated on the overlying stratified deposits; they have been set on end, pushed aside, and often completely overturned by the pressure of the intruding mass. The crystalline masses, on the other hand, when lifted to a sufficient height, and delivered from lateral pressure, have expanded in the direction of least resistance, and have thus produced the fan structure so characteristic of the central region of the Alps.

general plan of the architecture of the Alps than in the section exhibited to a traveller following the high road across the pass of the St. Gothard. At the summit of the Col he finds the granitic nucleus forming a nearly level plateau, on which are several small lakes. This granite shows distinct traces of stratification, and in descending from the pass on the north side the dip is to the south, pointing, as it were, to the internal axis of the chain. The granite is followed by crystalline slates; but on descending into the broad valley of Urseren, extending by Hospenthal to Andermatt, the rock seen is a very friable slate, sometimes of very dark colour, and probably belonging to the carboniferous series. This extends to the Furka, at the head of the Urseren Thal, and the form of the valley, with its uniform and somewhat monotonous slopes, is doubtless due to the yielding nature of the slate, that has been easily excavated by agencies that have had comparatively little effect upon the crystalline rocks. At the Urner Loch—the cleft through which the Reuss escapes from the Urseren valley to descend towards the lake of Lucerne—the high road again enters among the crystalline rocks, at first in the form of gneiss or mica slate, but gradually passing into true granite. This is the eastern extension of the nucleus of the Finsteraarhorn, which reaches to the Clariden Grat, and is then covered over by the sedimentary rocks of the Tödi and the Biferten Stock. This second crystalline mass, here deeply cut through by the Reus, extends through the narrow part of the valley as far as Amsteg. The valley widens out below that village as it enters amongst the limestone rocks, which form on each side the peaks of the Windgelle and the Urirothstock.

The descent on the Italian side is not less steep than on the north side, and leads over the same granite rocks that form the plateau, but the dip is now to the north. At the base of the slope at the village of Airolo the valley is parallel to the granite nucleus, but the rocks in this trough are no longer crystalline in texture. Following the Val Leventino to Faido the road enters upon a third crystalline mass, that of Tessin. This is more extensive, but less lofty and broken in outline than those already mentioned. The rock is gneiss, very uniform in composition, which extends as far as Bellinzona. Here the mass of the Tessin Alps is interrupted by the appearance of a broad band, crossing the country in a south-westerly direction to Biella, and marked by the presence of metamorphic rocks, accompanied by others of igneous origin, in which hornblende is the prevailing mineral. South of this is the crystalline group of the Italian lakes, which extends in the form of gneiss to the low ridge of the Monte Cenere, crossed by the road from Bellinzona to Lugano. The latter city lies in the midst of the exterior covering of the sedimentary rocks, which are broken here and there by eruptive masses of porphyry. Thus the arrangement of the rocks traversed on the south side of the central range is essentially the same as that on the north side, but they are less extensively distributed, and there are no instances of a reversal of the natural order of superposition, such as may be seen in some places in the valley of the Reuss. The granite of the St. Gothard is well known for its large crystals of felspar and the rare minerals which it contains; it is confined, however, to the centre of the range, passing on each side into gneiss, which in its turn shows a gradual transition to mica schist, abundantly charged with garnet crystals. The fan structure is very evident throughout the group. Among the minerals found in the granite are several containing oxide of titanium—rutile, anatase, and brookite; besides which are hematite, fluor spar, apatite, axinite, tourmaline, and remarkably fine quartz crystals.

The acquisition of this little piece of information renders the remainder of the journey much more interesting, and at the same time gives an opportunity of enjoying the magnificent scenery, instead of troubling oneself with scientific investigations. Having had the good fortune at Altdorf to make the acquaintance of Mr. Levoiseau (who seems to be the private secretary of Mr. L. Favre, the enterprising contractor for the tunnel), and as it happened that Mr. Favre was himself going up to the tunnel that day, there was no difficulty in making a careful examination of everything, whether connected with the machinery or the tunnel itself. Leaving Altdorf by the diligence at 8 o'clock in the morning, Goeschenen (where the northern end of the tunnel commences) is reached by about noon, and having taken up quarters at the Hotel Goeschenen which is decidedly the best in the place, we returned to the Cheval, or Rossli (where Mr. Favre puts up), to dejeuner, and then went with him and Mr. Levoiseau to the tunnel. This saved all trouble in getting orders, which it needs scarcely be said are required to gain admission to the works under ordinary circumstances, for of course the presence of visitors is very undesirable where work is going on. The engineers' shop is most completely furnished, and some very excellent machine tools are employed for repairing and altering the various drills, &c., in use. The François-Dubois, the Ferroux, and the McKean are all in use; some of the latter not being yet unpacked, but the two former kinds are being gradually replaced by the latter, and as there is no patent law in Switzerland it is not difficult to make all practicable improvements to enable old stock to be worked up. The simplicity of the McKean drill is very highly spoken of by Mr. Favre, and it is anticipated that when all the drills used are of this form the end will be advanced as much as 10 metres (nearly 6 fms.) per day, if the debris can be removed so quickly; upon which point there is no serious apprehension, owing to the facility with which the debris of 6 metres per day has been dealt with, and the time to spare at that speed. Indeed, it requires but half-an-hour's conversation with Mr. Favre to discover that he is complete master of every detail of his profession, from the boring and charging of a hole to the construction of the most delicate portions of the machinery he has called to his aid. In the making of the tunnel the mode of operation is somewhat peculiar, the leading heading being not being, as is usual, put in at the bottom of the projected tunnel, but immediately below the summit of the arch, somewhat thus:—



The heading A, about 2 metres high and 1 metre wide, is the leading heading, or galerie d'avancement, and at the Goeschenen end is at present in between 1300 and 1350 metres, whilst B is the following tunnel, or cunette, at present about 900 metres in. The parts marked C are at present being worked away by hand, and are kept well in advance of the cunette. Railways are laid on the bottom of B and on the top of D, the latter terminating with an incline toward the mouth of the tunnel, so that the whole of the debris from A, B, and C can be quickly loaded into trucks, and hauled out by the small locomotive worked by a cylinder of compressed air about 5 metres long by 1½ metre diameter.

That there may be no delay in consequence of bringing the railway along D, and thus keeping the ground standing, Mr. Favre has devised a very ingenious hydraulic lift, mounted on a small truck, for lowering the loaded trucks and raising the empties. By this apparatus the attle coming from the leading heading will near the end of the cunette be transferred without change of truck to the railway on the bottom of B, so that they will be able to remove the rampe altogether, and keep D but little behind the cunette. The order and precision with which the work is carried on reflects the utmost credit not only upon Mr. Favre himself, but upon all his officers. There are the day shifts and the night shifts, each shift comprising full pares of boring machinists, mariners, and fillers. The first mentioned drill the holes rather more than a metre deep, run back the machine and retire, their places being quickly taken by the mariners, who charge the holes and fire them; and as soon as the smoke has sufficiently cleared away the fillers load the trucks, which are at once hauled out of the tunnel by the little locomotive. The explosive used is a dynamite of high quality, manufactured by Mr. Favre near Lake Lucerne, and transported thence by ordinary wagon to the tunnel. To say that both the machinery and explosive work is satisfactory is needless, since it has already been mentioned that no less than 6 metres per day has been removed—a rate of working which would place many of our home mines in a dividend-paying condition, although at present they are merely struggling for existence. A few metres of the masonry is put in at the mouth of the Goeschenen end of the tunnel, and Mr. Favre states that he intends to put in a fair sized ventilating tube immediately under the crown of the arch, and for the entire length, so that there can be no doubt that the air will at all times be good.

Leaving Goeschenen, a beautiful though rather steep walk of a few miles takes us over the Devil's Bridge, where torrents form a fine cascade, to Andermatt. As one can always outwalk the diligence at this part of the road, it is much more agreeable to walk, and thus gain half-an-hour to look at the minerals, photographs, and other curiosities at the little cabin opposite the Belle Vue Hotel, but it will be found that with the attractions of chalets and fox skins dressed *au naturel*, and views of the more attractive points already passed, 100 frs. are disposed of long enough before the diligence comes up to take you out of the way of temptation. The walk from Goeschenen will have produced a good appetite for dinner time, for which about 20 minutes is allowed at Andermatt, and we then go on by way of Hospenthal to the Hospice of St. Gothard, the steepness of the road again permitting a walk; indeed, having passed across country for, perhaps, a couple of miles until we reached the summit, the diligence was so long coming up that one almost fears he is on the wrong road, but as there is one only he is perfectly safe. At the Hotel de la Prosa, close by the Hospice, our five horses (two in the shaft and three leaders abreast) are changed for two. La Prosa may be considered the half-way house, leaving about 18 kilometres to Airolo, but the second half of the journey is performed in one-sixth of the time of the first. The roads which incline at about 1 in 10 double and redouble, so that one can see 8 or 10 roads successively beneath each other, and as both diligences are descending at full gallop, the one behind appears likely to turn over upon you, and it seems impossible that either will be able to turn sharply enough to escape going over the precipices terminating the several inclines. Little more than an hour, however, brings one to Airolo, whence the other end of the tunnel is being driven; and although the announcement equivalent to "No admission unless employed on the works" is very prominent in several places, there was every politeness in giving information and permitting inspection of all parts of the work. The orderly arrangements are as readily observable as at Goeschenen, but the contrast of the dirt at the Airolo end (which is only equalled by the filthiness of the town itself) with the Goeschenen end is striking.

The Airolo end is not so far in—about 1100 metres—as the Goeschenen end, and the progress has been slower. The water is very quick, nearly knee-deep, and they have recently passed through a band of hard quartz, 70 metres thick. The consequence is that they have only got through 2 metres per day for some time (though a fathom a day in hard rock would be considered first-rate work in English mines), but as they are now in the granite again they will no doubt soon progress more rapidly. The machinery works well. Mr. Colladon's compressors are slightly modified in detail here, and there were half-a-dozen or so of the McKean drills which had been so recently delivered that they were not unpacked. Of the machinery, however, we must speak in another notice, and for the present will only say that they have put in the Airolo end of the tunnel in a direct line with that at Goeschenen, to facilitate accuracy and more readily to get tip room, although the curve in the permanent way will ultimately extend some distance into the tunnel. The aqueduct beneath the floor, 1 metre deep and 1 metre wide, is being cut very rapidly, the McKean drill being alone used, and as soon as it is up to the end will of course facilitate letting down the water and make the tunnel much more pleasant to work in. Much is to be learned from a visit to the tunnel, and as the experience gained has permitted many important improvements in the machinery to be introduced the description of the latest, which will hereafter be given, will be of very general interest.

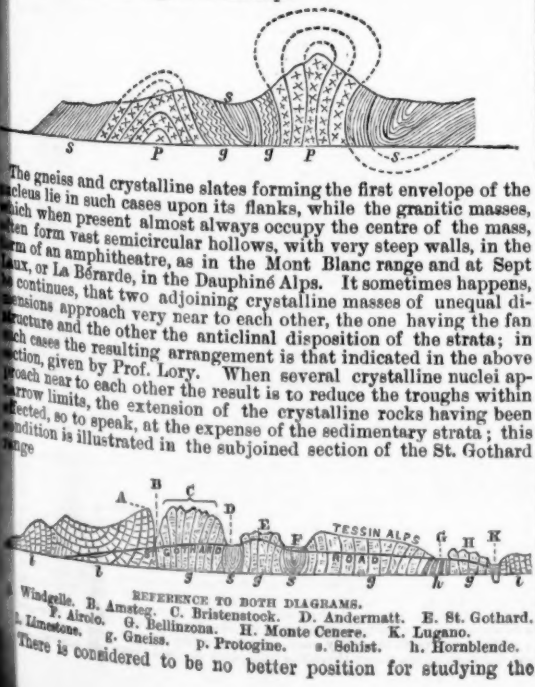
A NOTABLE ANNIVERSARY—THE FIRST RAILWAY.

Forty nine years and a day have elapsed since the formal opening on September 27, 1825, of the first public railway. The Stockton and Darlington Railway has passed out of existence as a distinct institution, but yet it figures as a section of the gigantic monopoly of the North—the North-Eastern Railway, and the district which gave birth to it will not willingly let die the story of its fame. It may be interesting to recall the facts recorded, and to add others gathered from the memories of the few survivors of the early days of the first railway.

Early in this century communication by canal or railway between the port of Stockton and the coal districts to the west of the county of Durham was projected. Committees were appointed to forward the project at Darlington in 1812 and at Stockton in 1818, and that at the latter place issued an elaborate report drawn up by Mr. G. Leather, at the instance of the late Mr. Christopher Tennant, of Stockton, in favour of a canal from Portrack, near Stockton, to Evenwood Bridge, near West Auckland. Slowly, however, opinion of capitalists gravitated to the project of a railway, as it was then called; and in 1819 application to Parliament was made for power to construct such. The application was defeated, and in the following year a second application also fell to the ground. In 1823, however, the application of the Stockton and Darlington Company was granted by the Legislature. The company seems to have taken time by the forelock, for on May 23, 1822, the first rail of the railway was laid near St. John's Well, Stockton, by Mr. Thomas Meynell, of Yarm, the Chairman of the company. Sixty shareholders composed the company; the length of the line was 25 miles, and its construction occupied above three years. On Sept. 26 the committee and directors had a preparatory trip on the line, and on the following day the formal opening took place—the first locomotive conveying a vast body of passengers, and goods estimated at 90 tons, from Brusselton Incline to Stockton.

The account given by one of the few recorders of that day has been so often quoted that repetition is unnecessary. Of those who made the journey most have passed over it into the silent land, the chief and almost sole survivor now is Mr. Henry Pease. Little expectations had the company of passenger traffic, and one "coach" mounted on flanged wheels, and named the "Experiment," was their sole provision for it. For eight years its successors were horse drawn, and constant quarrels arose between the drivers of the quadrupeds and the drivers of the engines used for merchandise. When Middlesbrough was forming, coaches such as Union and Express were first locomotive-propelled by the Wilberforce. The rest we know; and know, too, that despite deficiencies, the motto has been appropriate which was chosen to emblazon Experiment by a clergyman named Peacock, of Stainton, near Stockton—*periculum privatum utilitas publica*. The company ordered three engines of Messrs. R. Stephenson and Company—Locomotion, the first engine employed on a public railway, which was the sole engine employed in 1825; and two others which commenced work in the following year—Hope and Black Diamond. It was soon found that repairing works were needed for the engines; and in 1825 a narrow barn-like shed was erected at Shildon. It consisted of blacksmiths' shop, with two smiths' fires, in which less than half a dozen smiths worked; a joiners' shop, with a similar number of hands, and a shed to hold two small engines.

The measure in which this first railway has influenced the district it penetrates cannot be better told than by brief figures showing the difference in the populations then and now. It may, however, serve to show the magnitude of that system, founded by a Stephenson and a Pease, if we quote from official statistics a few figures proving the extent of the development of the railway system in the North. Instead of one engine, the successors of the Stockton and Darlington Company have 1155; in place of one coach they have 1500; the line has grown from 25 miles to 1311; the dividend is more than threefold; the capital, from 160,000*l.*, is now above 48,000,000*l.* The two small sheds for repairs have found such huge successors that their cost is above 380,000*l.* yearly; and the amount of train mileage run is enormous—approaching 20,000,000 miles yearly. From Doncaster and Hull to Berwick, from Scarborough to Carlisle, from Tebay and Penrith to Saltburn—the chief of the great northern counties are served by the aggregate of lines in which the identity of the ancient mother of locomotion is sunk. Five years after the opening of the Stockton and Darlington line its rolling stock consisted of 59 chaldron wagons, 53 wooden ones, and 29 three-quarter chaldron ones—the estimated value of which was under 1200*l.* If now the rolling stock of the company were gathered, both lines from Hexham to Newcastle would be blocked,



the line to Durham would be filled, to Morpeth would be similarly used, and every line and branch for miles round Newcastle would be occupied with about 70,000 conveyances, costing capital some 7,500,000. Railways have revolutionised England; making travelling possible, and commerce probable. And in the North—the birth-place at once of the railway, the locomotive, and their great introducers—the results of that revolution are seen as greatly as in the South. In Britain, then, there should be on the anniversary of a memorable day have been remembrance of the two men, George Stephenson, in his honoured grave, and Edward Pease, in his quiet resting place in the Quakers' burial place at Darlington, whose skill and enterprise carried to a successful issue an undertaking which was hazardous then, but which has proved itself the parent of uncounted blessings. They were the pioneers of a system which has set time at defiance, and made distance of little moment. On rapid communication all the appliances of our civilisation depend, and having it we may well turn in grateful thought to the Killingworth engineer and the Darlington manufacturer, who needed an energy we can scarcely now credit, besides skill and enterprise, to slowly bring into being, 49 years ago, the first passenger railway.

THE LYME REGIS RAILWAY.

The first sod of this line was cut with much ceremony, on Tuesday, by the mayoress—Mrs. Skinner—and the feeling was very generally expressed that the enterprise would prove alike advantageous to the district and to those engaged in the construction of the line. Mr. Ward Jackson, in presenting the spade and barrow to Mrs. Skinner, expressed, on behalf of himself and colleagues, the fullest confidence in her ability and efficiency, remarking that as she had kindly undertaken the arduous duty, he had no doubt she was anxious to commence her work and earn her wages. Mrs. Skinner having dug the sod, turned it into the barrow, wheeled it along the plank, and dumped it over. The commencement of the work was announced by the firing of cannon and ringing of the church bells. Mr. Jackson and the Mayor—Dr. Skinner—digging and wheeling a spit each in the meantime. From the outset of the railway, which is considered amply sufficient for completing the line. It is also in contemplation to extend the system to Bridport and to improve the harbour at Lyme Regis.

In proposing the "Health of the Mayor and Corporation of Lyme Regis," he remarked that the district had been isolated for many years for want of a railway, which would cause the town to rise to importance. Lyme Regis was one of the oldest boroughs in the kingdom. It had been the resort of queens, kings, dukes, and other exalted personages. Why should not the town rise in importance, both commercially as a maritime port and as a watering place? There was nothing whatever to prevent it. It would be promoted by all that the town was capable of improvement. To achieve that a railway was needed. The strangers who were anxious to supply this need only wanted a little energy and perseverance on the part of the inhabitants and a little assistance. They were carrying on the railway entirely free from any offer, and without asking for single subscription. He did not, however, hesitate to say to say that they were not doing so out of pure love to Lyme, or solely for the public benefit, but were considering their own pockets as well. They would think him insane, and fit for a lunatic asylum, if he made a statement to the contrary. He contended that he was entitled to have some recompense for the money he invested. The Mayor, in acknowledging the toast, assured them that every member of the corporation was anxious for the prosperity of the town. The trade depended upon the way in which the town was approached. If more facilities were offered in the way of land and sea carriage the trade would be increased, and the corporate body and the whole town benefited. He had looked forward most hopefully to the time when Lyme would have a railway. The event of that day was the first step in the way of progress. The inhabitants were bound in honour to thank the gentlemen who had interested themselves in the matter, for whatever helped the trade of Lyme would benefit them individually. A railway would be an immense advantage to him, and he believed that it would be an advantage to all. It was his privilege to propose "Success to the Lyme Regis Railway, coupled with the health of Mr. Jackson." Mr. Jackson had interested himself for the good of the town, and he trusted that a new page in its history would be opened: 400 or 500 years ago Lyme was a prosperous place. Vessels were smaller then than now, and the harbour was large enough for a great number. But increased size demanded increased accommodation, and he was delighted at the prospect of that accommodation being provided. He should like to see the harbour made so as to accommodate the largest vessels now constructed. The town had declined, but he hoped that they had got to the lowest round of the ladder, and that it would now improve. Nothing would give him greater pleasure than to see it rise in importance.

The terms in which Mr. Ralph Ward Jackson acknowledged the toast were particularly appropriate. He explained that the inhabitants were indebted to the energy and perseverance of Mr. Duncan for obtaining the Act of Parliament, to which he (the Chairman) willingly gave his help. They were indebted also to Mr. Duncan for bringing the scheme to its present state. No one could look at Lyme Regis—not even a stranger—without expressing surprise at its being isolated so long, with Bridport on the east and Exeter on the west. He could not imagine how it was that persons connected with large companies had not filled up the opening. Fortunately a small company had now been formed with plenty of money to carry out the work, under a contractor whom he (the Chairman) was bound to say could not be equalled in the country. He believed that within 12 months such progress would be made that they would be able almost to fix the day of opening. There was a point with regard to the locality deserving the gravest possible attention. The railway might make a railway and bring down hundreds of thousands of people to the sea. No one present, he was sure, could calculate the amount of traffic which would be brought from the interior to Lyme within 12 months of the opening. But there was no place along the entire coast capable of so much improvement as Lyme Harbour. It possessed, moreover, advantages unknown in other places. It would be necessary to take a comprehensive view of the question, for it frequently happened that a large object could be accomplished at the same expense as a small one. Powers would have to be asked for of the Legislature to enable them to do what they proposed. The money required was far more than the Corporation of Lyme could raise. If they could not get it he hoped that the Corporation would allow the promoters of the railway to do it for them. He could safely promise, as Mr. Gover had promised with regard to the railway, that if facilities were afforded for the raising of money within two years the inhabitants would be astonished at the position to which Lyme had attained. The promoters would very soon have to face Parliament with reference to the works connected with the harbour. That was not the place to talk of matters of business. But he hoped that before many weeks elapsed they would receive another visit from the promoters to consider the best means of obtaining the powers absolutely necessary to make the town what they wished it to be. The inhabitants would not be put to any expense, because the promoters had plenty of men and money behind them. All he asked of them was to render all the moral help they could, and give evidence, if necessary, in favour of the extension of the harbour. He hoped that within three months they would see on paper what the promoters intended doing, and that they would believe they were come down there to perform what they had undertaken. He expected that it would be a good investment, and every man, whether he came from the North or West, had a right to find out, in this free land, the best spot for placing his money. He believed that capitalists would willingly embark their capital in an undertaking of that kind, particularly when they knew that the construction of a line of railway had actually commenced. The whole proceedings were of a highly satisfactory character, and both the railway and harbour enterprises have every promise of success.

BIRMINGHAM EXCHANGE.—The meeting at the Birmingham Exchange on Thursday was very well attended, and numerous influential parties were present. The principals, however, of several of the leading houses were absent. Among those present we observed:—Col. Barrows, Mr. Fisher Smith, Mr. Thomas Davies, Mr. Stephen Thompson, Mr. E. P. Baker, Mr. George Addenbrooke, Mr. Samuel Millington, of Sumner Hill; Mr. Solomon Woodall, of the Red Lion, of the Bullerworks; Mr. Samuel Woodall, of the Windmill End Works; Joseph F. Lloyd, Mr. William Addenbrooke, Mr. Millward, Mr. Henry Rose, Mr. Bolton (Lee and Bolton), Mr. David Kenrick, Mr. Keen, of the district; Mr. Page, Roway; Mr. E. T. Wright, of the Monmouth Works; Mr. Eberhard, of Regent's Grove; Mr. Danks, of the Wellington Iron Company; Mr. Charles Sturge; Mr. J. N. Brown, Cannon Chase; Mr. William North, Mr. Samuel Downing, Mr. Edwin Lewis, Mr. Thomas Lewis, Mr. E. T. Malswaring, Mr. H. T. Knight (Hayward, Tyler, and Co., London), Mr. J. Cartledge, the Mayor of Hanley, and numerous coalmasters, mineowners, and engineers from the Black Country and other districts. The market was firm for all kinds of iron, sheet-iron and hoops being in pressing demand; the makers, however, refused orders for pressing delivery for these kinds. Wire-rods have improved considerably; great activity prevails in this trade in Warrington and the Forest, and the leading house in Shropshire is full of orders. Nail-roads and nail-sheets were enquired for, and there were good buyers on the market, but this business was deferred by mutual consent until Quarter-day. In common bars and boiler-plates very little business was done, owing to the near approach of Quarter-day.

The death of Mr. Peter Harris, the oldest broker on the Exchange except Mr. Charles Ryland, was often referred to, with appropriate feeling remarks to his memory. This bereavement took place at Aberystwyth, and was the result of heart disease. The event, however, which created the greatest sensation was the death of dear Mr. Sampson Lloyd, whose life and conduct in the Black Country endeared him to the trade more than, perhaps, any other man living. The son of an honoured old banker, and connected, as deceased for so many years had been, with one of the most extensive and prosperous concerns in the Black Country, chairman of the Waterworks Company, still chairman of a large iron company, a county magistrate for South Staffordshire and East Worcestershire, one of Nature's noblest, churchwarden of his church, a friend to the widow and a father to the fatherless, kind to the poor, affable and amiable to all, loved by all, and now his death is deeply lamented by all. He rests in peace, and enjoys his great reward, for Sampson Lloyd, the son of Samuel Lloyd, the banker, was a Christian indeed. The deceased was brother to the late Samuel Lloyd, of Old Park, and first cousin to Mr. Sampson Lloyd, M.P., for Plymouth. The principal business topic of conversation on the Exchange was the price of iron at the coming quarter-day, owing to an unwarrantable statement made in a paper last Saturday, that people thought prices might be reduced at quarter-day. However, it was clearly proved on the Exchange that the parties who had the assurance to couple Lord Dudley's name with the statement had no authority for using it. From all we could gather

on the Exchange we believe prices will remain the same—(say) marked bars, 12 $\frac{1}{2}$ per ton; the Earl of Dudley's, 12 $\frac{1}{2}$ 12s. 6d. The tin-plate trade is better. The quarterly meeting of this branch of the trade will be held at the Queen's Hotel, next Quarter-day, in January, 1875.—London Iron Trade Exchange.

NORTH STAFFORDSHIRE INSTITUTE OF MECHANICAL AND MINING ENGINEERS.

The members of the association paid a visit on Monday to the engineering works at Hyde Junction, near Manchester, and the collieries and cotton mills in the immediate neighbourhood. The party, which numbered 120, left Longton by special train at 7.50, reaching Hyde Junction at a quarter to eleven, and were there joined by many of the leading manufacturers and iron merchants of the neighbourhood, including Mr. Cross, the member for Bolton. The members were received at the engineering works by the proprietor, Mr. Daniel Adamson, who, in the course of an address, said that no doubt the necessity for acquiring knowledge in their professional life was much greater than it was in the days of their fathers, when mining and general engineering was conducted on a much smaller scale, and this applied more especially to coal mining and mechanical engineering connected therewith. They now had deeper pits to sink, more water to pump from greater depths, or tub back under much greater pressure; and, further, a much more extensive and efficient ventilation was required to meet the wants of, and to protect the miners from harm where large and heavy outputs of coal were daily produced. To perform all these various and perplexing duties well required as much talent, acquired knowledge and perseverance, or more, than any staple industry that was carried on in this country. Such was required at this time, but as shallow pits became more and more exhausted, and still deeper pits were necessary to keep up our coal supply, more complete knowledge and careful management would be required to meet the ever increasing difficulties and contingencies which would naturally arise under such new and undeveloped conditions. However, the district that produced a Brendley, whose exertions and never failing energy gave to Lancashire and that county an inland water communication, he hoped would never fail to furnish men with the requisite talent and enterprise to carry successfully into operation every work that might be required to be executed by gentlemen in their profession. Mr. Homer, of Chatterley, the President of the Institute, in reply, said he quite endorsed Mr. Adamson's remarks as to the necessity of acquiring knowledge for the various professional difficulties in opening up our deep mines, erecting suitable winding and pumping machinery, and becoming conversant with the general details of engineering, as carried out in that and similar districts, hence their visit that day. He had no doubt that when they had seen all that was so fully set forth in the programme, a most important step would have been taken in that direction.

The party then proceeded to inspect the engineering works, which occupy an area of three acres, all under cover, and are fitted up with every modern improvement for the manufacturing of all kinds of engines, especially blast and Bessemer blowing engines and plant. In the boiler-making department exceptionally and well-adapted tools were seen at work, and boilers in every stage of construction. Amongst the specialties were tools for driving rivet holes, and a patent machine for forming the well-known Adamson's anti-collapse flange seam. The flanging of a boiler flue by this machine was an operation which was watched with great interest, the flange being turned by the machine in the short space of 25 seconds. Among other objects of interest in the works were a number of specimens of American coal and coke, and Lincolnshire and American ores. The coal looked to be only poor, but the coke was good, and the ores appeared to be very rich. Light refreshments having been provided, the party proceeded to the Victoria Pit and the Astley Deep Pit, the scene of the recent disastrous explosion. At the latter pit the party were under the guidance of the new manager, Mr. Benjamin Wilson, and many of them descended the shaft, which is 686 yards deep. At the bottom they were shown the place where the fall took place which liberated the gas by which the explosion was caused, also the underground winding apparatus, furnaces, and boilers. The shaft is 12 ft. wide, and the gear at the top is worked by a vertical winding-engine (condensing), 60-in. cylinder, 7-ft. stroke, and drum 24 ft. diameter. The large pumping-engine has a 71-in. cylinder, 7 ft. 6 in. stroke, and is worked by 10 double-flue Lancashire boilers. Leaving the collieries, the Newton Moor Cotton Spinning Mills were visited, but the only feature of special interest about these were the large quadruple-action engines at the Albert Mill. These are new engines, just designed by Mr. Adamson, and the steam which is supplied by three boilers, working at 110-lb. pressure, is passed through four cylinders. After passing through the first two it is conveyed through a superheater to the third, and then through a superheating pipe to the fourth, after which it is passed through a condenser back to the reservoir. The capabilities of these engines have not yet been properly tested, but it is expected that they will work up to 600 or 700-horse power at an hourly consumption of coal of 14 lb. to each horse-power.

After the inspection of the mills the party returned to the engineering works, where a splendid dinner had been provided. Mr. Adamson presided, and the toast list, in addition to the usual loyal sentiments, included, "Success to the Institute of Mechanical and Mining Engineers of North Staffordshire," proposed by the Chairman, and responded to by Mr. Homer, and "The Coal, Iron, and Railway Interests," proposed by Mr. Joseph Leigh, and responded to by Mr. Hopkinson.

—Iron and Coal Trades Review.

NEW COAL FIELDS.

The latest series of commercial reports issued from the Foreign Office contains the following report by Consul Blunt on the coal mines of Dranista for the year 1873:—A party of English engineers having recently surveyed, on behalf of the Viceroy of Egypt, the coal field of Dranista, and excavated from it some 350 tons of coal, which they have sent to Wales for the purpose of satisfactorily testing its steam generating or other properties, I have obtained from them the following account of their survey:—The coal field of Dranista is situated about 50 miles to the south of the town of Salonicia, and is enclosed by a range of mountains of crescent shape, commencing on the south at Mount Olympus, and terminating on the north at the Bay of Kitros, in the Gulf of Salonicia. There is an aggregate thickness of about 8 ft. of coal, extending over a known area of about 2000 acres; but it is highly probable that the coal field is of much greater extent, and although not actually proved, the engineers are of opinion, judging from the surface formation, that there is a total area of 30 square miles in which the above thickness of coal would be found, and which in round numbers would contain 255,000,000 tons of coal. The coal is of the Tertiary formation, appears to be of good quality, and would be useful for steam purposes. It burns very well in the open air, giving good heat, with very little smoke; but the engineers were not prepared to give me a definite opinion as to the chemical properties and fitness of the coal for generating steam, they not having been provided with means of making proper experiments with it on the spot. They say that in outward appearance it most resembles Scotch coal, but differs from all English coal in its rapid deterioration upon exposure to the atmosphere. When so exposed it breaks up and crumbles into dust in a very short time, but when stored under cover it preserves its quality very well. So far three seams have been proved, of which the following are sections:—Demolaca: soft fire-clay roof—top coal, 1 ft. 9 in.; soft holding dirt, 2 in.; bottom coal with shale bands, 1 ft. 6 in.; total thickness of good coal, 2 ft. 9 in.—Loptacaria: Coal, 8 in.; fire-clay, 2 ft. 10 in.; coal, 5 in.; coal with bands of black shale, 1 ft. 6 in.; fire-clay, 6 in.; coal, 1 ft. 4 in.; total thickness of good coal, 2 ft. 1 in.—Laca: Coal mixed with fire-clay, 10 in.; coal, 4 in.; black shale, 6 in.; coal, 3 in.; fire-clay, 7 in.; coal, 2 inches; black shale, 9 in.; coal with thin bands of fire-clay, 2 ft.; total thickness of good coal 2 ft. 3 in. Should the experiments with the coal prove satisfactory as regards its quality and marketable value, active operations on an extensive scale will probably be commenced early this year. The engineers propose sinking two pits, each of 300 yards depth, and to construct a rail or tramroad of about 20 miles in

length from the mines to Kitros, the nearest and most eligible place for shipping on the coast. The sinking of the pits would not entail great expense, as the ground to be sunk through consists principally of alluvial and Tertiary deposits. And the railway also could be cheaply constructed, the country through which the line would traverse being very level. A jetty would have to be erected at Kitros, this harbour being very shallow, and exposed to northerly winds. I am indebted for most of the above information to Messrs. Gray and Bell, the engineers who surveyed the coal field. Dranista, the chief village in the vicinity of this coal field, is prettily situated at the foot of Mount Olympus, in the centre of a well-wooded and picturesque country; its climate is salubrious, and the peasantry of this and surrounding villages, principally Greeks, are industrious and quietly disposed. Catterina, the nearest town to Dranista (three hours distant) is the centre of a very active and extensive trade in timber, which gives profitable employment to the population of the district. It is governed by a sub-governor under the Pasha of Salonicia, with which and with the chief towns in Thessaly and Macedonia it is in telegraphic communication. In a country like Turkey, where the consumption of coal goes on increasing, owing to the advance it is making in agriculture, industry, and population, and to the success of railway extensions and other undertakings, the coal mines of Dranista, if they are found sufficiently fertile and worth working, will be of very great consequence.

ECHOES FROM THE MINING MARKET.

The fortnightly account which has just been completed exhibited a marked increase of business as compared with the former one. Investments are daily increasing, and consequently prices rule firm. No change has been observable in tin, but shares of tin mines are decidedly getting scarcer at present quotations, and the feeling is abroad that the next move in the standards will be upward one. The result of the Banca sale is greatly in favour of tin. The good supplies from Australia are decreasing the American demand is steadily rising. The copper market having been remarkably steady of late, copper shares, although not in what we should call good demand, are firm, and show signs of hardening. Lead shares generally are dull (although in one or two isolated instances advance have been noted), and little is doing in them. Colliery shares are not quite so firm, although the business now being transacted still continues of great magnitude.

With reference to the falling off of Australian supplies of tin, noted above, advice have lately been received that the returns of tin sent from the Queensland mines to the coast show a gradual diminution, the receipts at Warwick for the week ending July 10 not exceeding 65 tons. It is said that the bulk of recent transactions in tin ore at Sydney were private sales to local smelters, at about last month's quotations. From January 1 to July 25 the tin cleared for export at Sydney was valued at £28,214. Should the colonial produce fall off one-half, and home consumption continue brisk, we should undoubtedly soon have better prices. But will such a combination of circumstances occur?

The proceedings at the late meeting of West Chiverton would appear to foreshadow a change of management, and the removal of the offices to London. We note that the reserves of lead in the mine were stated at the meeting to be worth between 12,000 $\frac{1}{2}$ and 13,000 $\frac{1}{2}$, but the probable cost of realising did not transpire. Although Captains Nancarrow, Juleff, and Nicols "considered" that "the machinery was in good working order throughout," Captain James reported very unfavourably upon its present condition, and stated that 100 tons of coal per month cost easily be saved if it was only put in good repair, the waste of steam owing to leakage being very great. These conflicting statements must have greatly puzzled the shareholders, and if Capt. James is found to be correct, the position of the agents will be greatly shaken. At the same time, we are glad to notice that the meeting decided to make no change in haste, and in adjourning their deliberations for a month showed no wish to judge the present management too harshly. The latter will now have ample opportunity to meet the charges brought against them; and although on the face of things they appear to have conducted affairs with some laxity, shareholders must remember that even they themselves cannot be said to be free from blame, for the officials have for some time past been left without the stimulus of healthy supervision, and their system of management has also for a long time been suffered to pass unchallenged. The present position of West Chiverton is undoubtedly the result of having a mine locally managed, when the great body of adventurers are what is technically known in the country as "out-adventurers."

The shareholders of Dolcoath were agreeably surprised in the early part of the week by the receipt of a dividend of 10s. per share (2148 $\frac{1}{2}$), together with a very encouraging report of the condition of their property. At the previous account the dividend was 10s. 6d. Considering the state of the tin market during the past quarter, many would not have been surprised to have seen more than this trifling reduction in the dividend, and that that much could be paid speaks volumes for the richness and general prosperity of the old mine. There are but four tin mines paying dividends at the present moment, and Dolcoath heads the little list.

Better reports are to hand respecting Providence Mines, and the shares have been enquired for—no call to 3 to 4. The meeting will be held on the 6th inst., when it is expected that no price will be required.

In Foreign Mines business has been fairly active, Hedgeshaft having received, perhaps, the greatest share of attention. The meeting has been postponed from the 5th to the 9th inst., which looks as if the negotiations are yet incomplete. The general expectation appears to be that some satisfactory solution will be arrived at, and on the strength of this a good many shares have been bought, whereby the market has become firmer. In the early part of the week the shares were flat at quotations. One of the Emma directors has issued a short statement to the shareholders, wherein he tells them that they "have been the victims of a gigantic deception" (pretty apparent to all for some time), and that "steps have been taken to establish this point and fix the responsibility upon the culpable parties." Meanwhile "steps have been taken" also by the vendor, who has attached the mine, so there is every sign of a further deadlock in this unfortunate concern. The shares, as might be expected, are in a most depressed condition. Good news continues to come from Richmond Consolidated, and the stock shows a further improvement. There is no doubt that the company possesses a wonderfully rich property. It is entitled to rank as one of the few prizes amongst all the wretched blanks of American gold mining. JAMES H. CROFT.

MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

SOUTH CARADON.—A 2d. dividend at least is expected at the meeting next week. The mine is looking well.

WHEAL MARY ANN (Menheniot).—All operations were entirely suspended on Saturday last, and the materials are now being drawn to surface, which will be sold by auction shortly. If a sett could be obtained of the adjoining ground there would undoubtedly be a splendid mine. The present company have in vain applied for the sett.

SOUTH WHEAL CROFTY.—There has been a steady and gradual improvement in the lode at the engine-shaft, and it is now a good lode worth 25s. per fathom. They will proceed to drive to intersect the lode which, when arrived at, will probably enhance the value of the mine considerably. There is no discovery of a lode as yet in the north cross-cut towards East Pool; but small branches of tin are still met with, denoting that there is a lode at no great distance, or that the lode from East Pool has split away into the small branches. This will have to be further proved.

WHEAL NORTHWOOD (St. Neot).—This mine will resume, it is anticipated, operations shortly. There is a splendid course of tin to be seen.

WHEAL VINCENT (Altarnun).—This mine, which was offered by auction a short time since, still remains unsold. It would with a fair outlay pay dividends, if the tin standard would improve.

TESDALE.—The agent writes, after describing all other operations in progress, "Our prospects in No. 3 cross-vein are very good indeed; the old ground is yielding better than I expected, and there is lead ore in sight at various points as good as we started with in the rise (the rise is worth 20s. per fathom), and a good deal of ground left at various points, while further south the most reliable living evidence that a rib of solid lead ore 10 in. wide was left standing under water. Also north of the old man's had his deepest, richest, and most extensive workings, which Holme's level will uncover in about 30 fms. driving; but as we are driving through a piece of ground 4 fms. high, which there have been large quantities of ore taken from above, there is reason to expect it will not be barren. A few places like the present rise south will place the mine in an independent position, and eventually Sand Syke level will place the east and west veins and north and south dikes 8½ fms. deeper from the surface, and independent of the discoveries to be made in driving them through whole ground."

The capital of the NORTH PRINCE PATRICK LEAD MINING COMPANY (Limited) having been obtained, the work at the mine will be commenced forthwith, and doubtless within a very short time this mine will take its place among the chief lead-producing mines in Wales. The shares are quoted par in ¼ premium.

WEST ESCAR LLE.—At western mine the machinery is all in good order, and dressing of ore proceeding at a good pace. The carriers are in full operation, carting down the last 50 tons to the shipping port. At eastern mine the appearance of the lode in the 34 cross-cut is of that encouraging nature as to lead to the conclusion that they are now close on its ore-bearing part. Probably by next week the agent will be enabled to inform the shareholders of a good improvement at this point. It is hardly necessary to state that a course of ore was 10 fms. of back of good ore ground immediately available for stopping. The manager is as anxious as ever of realising this important result, and a very short time now only is necessary to verify his predictions.

THE PROVIDENCE MINES (Lelant).—These shares are again being enquired for, after being very low and almost neglected for the past six or seven months, during which heavy calls have had to be made, and were worthily responded to, to entirely clear off the liabilities, which were hanging like a weight on the mine. These have been swept away, and the mine is again in a really good and sound position. With the assistance and superintendence of the able committee appointed last March the utmost economy has since been used in every department, and the result is that the meeting of shareholders to be held on Tuesday will be most cheering to the adventurers. The notice calling the meeting has been sent out by Mr. E. Trythall, the purser, in which nothing has been stated or hinted at making a call; on the contrary, according to reports, a very fair profit will be shown on the quarter's working. The mine has improved generally since the last report, and the prospects are really good, more especially in that part of the mine about Hawke's shaft, where there is a fine piece of good tinny and undeveloped

DENBIGHSHIRE CONSOLIDATED.—The change taking place at the 12 west is most important. The great point in this extensive property is nearly reached, and should the vein maintain its character a very large deposit of ore may be calculated on.

BRITISH MINES

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near the lode. In the 142, driving north on the caunter, the lode is worth for 117 gr. per fathom. The lode in the 130, driving west of shaft, is 4 ft. wide, and worth for 121 gr. per fathom. The lode in the 130, driving east of shaft, is producing good stones of tin. In the 118, driving west of shaft, the lode is 2½ ft. wide, and worth for 100 gr. per fathom. In the 118, driving east of shaft, the lode is worth for tin 10½ gr. per fathom. The lode in the wine sinking below the 100 west is 3 ft. wide, and worth for tin 9½ gr. per fathom. The lode in the 20 east is at present poor. In the north adit level, driving west of eastern boundary, the lode is producing a fair quantity of tin. The lode in the 20 west is 2½ ft. wide, and worth for tin 10½ gr. per fathom. Dec. 1. The men are still sinking on Hitchin's shaft. WCCG, 1891.

ent quarters are legitimate, and even sufficient reason for anticipating

the more so as this preliminary of the consumers must surely and effectually frustrate all hope of a fall. Yellow prussiate has been in better demand, and an advance of 1d. per pound has been noted. Nitrate of soda has likewise reached a higher figure for immediate delivery, an additional advance being asked for forward orders. Now that the upward movement has really begun a further advance is not at all unlikely, although we doubt whether the price will soon regain its old level. There has been more enquiry for benzole. The stocks laid in at late rates have considerably lessened the supply, and higher quotations have latterly been needed by buyers. Bleaching powder continues steady, at late prices. Sulphate of ammonia has been in even shorter supply than before; the price, however, remains unchanged, as the demand has been but slight. Saltpetre has been quiet, and prices rather easier. Minerals: The coal market has been fairly active. The week compares, however, unfavourably with the preceding one, owing, no doubt, to the sudden withdrawal of speculators. The reassuring aspect of the South Durham dispute has reduced the demand to urgent requirements. This restriction has been felt even in house coal, though far less than in other kinds. The manufacturing coal trade has been almost at a standstill. Prices are lower, and show a dropping tendency. Copper ore has fully maintained their rates, and business continues steady. At the last sampling at Swansea 2398 tons realised 22,600l., and continues steady. Union and Cape ores, are entered for next sale. In lead ore a fair business has been done at late rates. Iron ore has shown no signs of improvement. The transactions reported are few and insignificant, at even somewhat easier rates than last.

Messrs. Pixley and Abell—GOLD: The only arrivals during the week have been 86,800l. from the West Indies, and 24,000l. from China. The coin of these shipments has been taken for transmission to Paris, and the bars, 81,000l. in value, have been sent into the Bank. On Oct. 5 about 954,000l. may be expected to France, and the Bank will receive the bars, there being at present no demand for them. SILVER: The market continues depressed, and the price at 57½d. per ounce exhibits no change. The arrivals during the week have been about 76,000l. from New York, and 35,200l. from the West Indies. The demand has been chiefly for Russia, but the Peninsular and Oriental steamer takes 5000l. to Bombay.

The settlement of the fortnightly account took place in the MINING SHARE MARKET this week, and was comparatively of small amount. For tin shares there has been rather more enquiry this week, but very little business has been transacted, and for these, as well as for shares generally, our quotations are for the most part nominal.

The Banca sale went off very well, and the tin realised something like 98l. per ton, delivered in London—about equal to the previous sale in July. At the Copper Ticketing, on Thursday, the standard for copper ores advanced 3l. 12s. per ton.

Dolcoath, 46 to 48; at the meeting, on Monday, the accounts showed a profit of 2172l. on the quarter, and a dividend of 2148l., or 10 per cent., was declared, leaving 2600l. in hand. The engine-shaft is now down 7½ fathoms under the 314, and the south part of the lode is worth 50l. per fathom for 12 ft. long. The entire lode is worth 150l. per fathom. Great Laxey, 11½ to 12; the accounts just issued to the shareholders preparatory to the meeting show a cash balance at the bankers of 10687, 4s. 5d.; ores on hand valued at 10,228, 7s.; land at Laxey, &c., 5000l.; total assets, 11,978, 9s. 11d., against liabilities—to merchants, 3549, 13s. 4d.; royalty, 1932, 12s. 3d.; charges on ores, freights, &c., 9617, 1s. 8d.; office expenses, 922, 1s.; directors' travelling expenses, 24, 14s. 10d.; leaving 5276, 0s. 10d., to which is added as an asset "Amount of ores estimated by agents to be contained in topplings that are to be redressed"—lead, 220 tons at 19l., 4168l.; blende, 2200 tons at 2l. 4000l., making estimated assets, 13,856, 0s. 10d. The general account of income and expenditure from July 6 to Aug. 7 shows—Lead sales, 21,571, 2s.; and blende, 9467, 15s. 10d.; total, less credited last account, 23,612, 1s. 10d.; stock on hand, 10,228, 7s. The expenditure has been—Labour costs, 19,763, 1s. 7d.; merchants' bills, 5010, 15s. 11d.; royalty, 2986, 16s. 1d.; dividend paid in April, 4500l.; and other charges, making up an expenditure of 14,926, 14s. 9d. The report, which is a very long one, shows that 602 persons are employed at the mines—miners, &c., underground, 338; on the surface, 324. The deepest level is the 235 fm. level, which is poor. At Dumbell's, the 155 is a rich level, worth 100l. per fathom in a rise. Van, 22 to 24; the directors have declared a dividend for the quarter of 10s. per share—7500l. Van Consols, 2½ to 3; East Van, 3 to 4.

Wheal Jane, 2 to 2½; at the meeting the accounts showed a profit on three months' working of 434, 12s. 11d., and a balance of 651, 16s. 7d. was carried to the credit of next account. This was taking credit for tin in stock, 53 tons—2780l. The agent's report states that he is opening out more tin ground than he is taking away, and all that is wanted is a better price for tin. At Wheal Owles meeting the costs were 3150l. for the quarter, and the debit balance nearly 12,000l., against which there is in stock 200 tons of tin. Wheal Bassett, 20 to 22½; at the meeting, on Tuesday, the accounts showed a profit of 1017, on three months' working, and a debit balance of 4635l., but no call was made. The copper ores sold realised 532d.; tin, 64½ tons, 3533l. The report states that in the tribute department there are pitches working on copper from 4s. to 15s. in 17, and on tin from 9s. to 13s. 4d. in 17. South Crofty, 10 to 11; the lode in Price's shaft still improved, and is reported worth 25l. per fathom. Wheal Grenville, 4½ to 4¾; the cross-cut in the 160 north is being pushed forward with all possible dispatch. The stopes above the 150, on South Condurrow lode, is worth 15l. per fm. Various points in operation are worth 113l. per fathom in the aggregate. New Rosewarne, 4 to 5; the 58 west continues worth 12l. per fathom for copper. Bog, 5s. to 10s.; Carn Brea, 55 to 57½; Cook's Kitchen, 10 to 11; East Bassett, 3 to 4; East Caradon, 1 to 1½; East Lovell, 11 to 12; East Pool, 8½ to 9.

East Darren paid a dividend of 17. per share on Wednesday, making 224, 10s. paid on each 32. share; Devon Great Consols, 17s. 6d. to 22s. 6d. At Wheal Emma, the 145 east, 130 east, and the 115 east, on Northway's lode, are looking well, being worth 40l. and 60l. per fathom for copper ore, and of very prospect of a continuance. Hingston Down, 1 to 1½; Ladywell, 2½ to 3; Marke Valley, 20s. to 22s. 6d.; Parys Mountain, 7s. to 9s.; Pennerley, 1½ to 1¾; Penstruthal, 10s. to 12s. 6d.; Providence Mines, 4 to 5; Roman Gravel, 14 to 14½; South Carn Brea, 1½ to 2½; South Caradon, 95 to 100; South Condurrow, 3 to 3½; South Frances, 10 to 12; South Roman Gravel, 12s. 6d. to 17s. 6d.; South Tolarne, 5s. to 10s.; Tincroft, 30 to 31; West Bassett, 8½ to 8¾; West Chiverton, 1½ to 2; West Esgrail L. 2 to 2½; West Frances, 9½ to 10½; West Seton, 20 to 22½; West Tolgus, 70 to 72½; Wheal Crebor, 20s. to 22s. 6d.; Wheal Kitty (St. Agnes), 5½ to 6½; Wheal Pevor, 2 to 2½; Wheal Uny, 1½ to 1¾; Tankerville, 7½ to 7¾; the report states that the lode in the 152, 140, and 92 fm. levels, west of Watson's shaft, are worth 5 tons of lead ore per fm. each; the winze below the 130 west 5 tons. The next sampling will be 100 tons of lead ore for the month.

Almaden and Tiritio, 3 to 4; Birdseye Creek, 2½ to 2¾; Cedar Creek, 1½ to 1¾; Chontales, 3 to 4; Don Pedro North del Rey, 3 to 4 dis.; Eberhardt and Aurora, 5 to 5½; Emma, 1½ to 1¾; Flagstaff, 2½ to 3½; Frontino and Bolivia, 5s. to 7s.; Last Chance, 3 to 4; Malpasso, 3 to 4; New Quebrada, 3 to 3½; Richmond Consolidated, 6½ to 6¾; St. John del Rey, 240 to 250; South Aurora, 3 to 4; Sweetland Creek, 2½ to 2¾; Tecoma, 3 to 4.

The Market for Mine Shares on the Stock Exchange during the week has continued to manifest an improving tendency, and the fortnightly settlement, which was satisfactorily concluded on Wednesday, showed that the extent of business transacted during the period embraced in the accounts had been upon a much larger scale than for many months past. The strengthening condition of the metal market induces investment purchases, especially at the low level of prices which now obtains for nearly all classes of home descriptions.

American mines have been fairly supported, and in some instances a sensible advance has been established. In the case of Flagstaff the "account" developed the fact that considerable re-purchases are being made by influential parties, who had sold at much higher prices, in addition to which the encouraging manner in which the mine continues to open out, and the satisfactory announcement expected to be made at the forthcoming meeting (adjourned till Friday next) have stimulated purchases both for investment and speculation. The mine, it is stated on reliable authority, has during the past few months "developed" resources unequalled by anything hitherto discovered, ensuring a long career of remunerative prosperity.

Richmond Consolidated, 6½ to 6¾. Cablegram received:—"£43,000 six days. Richmond ore only." Some misapprehension appears to exist as to the bearing on the interests of the company when Richmond ore only is put into the furnaces. The explanation is that for some time past parcels of very rich ore, the produce of small veins in the neighbourhood were purchased and smelted with the

Richmond ore, but as the price asked of late for these outside ores has been raised it is not now considered desirable to purchase them, and it is ascertained that quite as much, if not more, profit results from smelting only the produce of the company's own mine, though the weekly returns do not give so high a gross return in bullion. The mine, moreover, is yielding so largely that the existing furnaces are inadequate to deal with the daily output, and some weeks since the ore on the dumps amounted to 3000 tons. At the same date about 80,000 bushels of fine charcoal had been accumulated. The stratum of iron ore which ran horizontally about 100 feet, is found to have about 40 ft. thick of good ore overlying it, and 60 ft. width alongside of it. It seems probable that the new finds may turn out to be great feelers, or limbs, shot up from the giant lode below, and that all may merge in depth into one vast body. The *Eureka Sentinel* of Sept. 9 reports that "the grading party is now within 10 miles of the proposed winter terminus—Chimney Station; the iron has not yet arrived, but is expected daily, having already been shipped from the East. Ties are arriving from Truckee, and are being laid at a lively rate." The remainder of the route to Eureka is being laid out for early completion in the spring. Professor Whitehill, State mineralogist, is making an official inspection of the mines on Ruby Hill; it will be advisable to look out for his report to the Government on the Richmond. The value of the bullion smelted this season amounts to \$32,600. Eberhardt and Aurora shares have declined to 5½, 5¾; the latest private dispatches state that everything is going on well. New Pacific, 3 to 4; the mine is presenting an improved appearance, on the whole. The agent is raising some ore of a very good quality.

Emma shares have remained without material change, and leave off 1½ to 1¾; so long back as Aug. 15 we referred to the fact that difficulties were likely to arise as the result of the proceedings that had been commenced by the directors against the vendor, and last week stated that the mine had been seized on account of a claim of the Illinois Tunnel Company. But, although it is stated the manager informed the board of the fact on Sept. 17, the first official announcement was made only on Monday by the statement "That there is no truth in the report that Mr. Park has seized the mine—all that has taken place is that he has commenced legal proceedings to enforce an alleged claim; and has, as part of such proceedings, issued an attachment against the mine, the validity of which will be decided in the proper legal courts." Last Chance, 3 to 4. Tecoma, 3 to 4; a meeting of shareholders has been convened to consider the position of the company. The affairs have become complicated and embarrassed by the presentation of two petitions to wind-up the company. The board were unanimous in their recommendation that the shareholders should subscribe sufficient capital to meet the pressing liabilities. Utah, 4 to 5; there is nothing from the mine this week. The annual meeting is due on Oct. 7.

The shares of the Hydraulic Mines have not presented much animation, although there has been a fair business, especially in Sweetland Creek, which close 2½ to 2¾ ex div. The distribution of the dividend has taken place this week. The news from the mine remains the same. Blue Tent, 5 to 5½; the importance of the work now in progress under the superintendence of Col. Tozer appears by private advices to be fully endorsed by Mr. Courtenay, the chairman, who has been on the ground since Aug. 17. The first section to Diamond Creek must be nearly completed, and there will at once be quite a demand for water, as extensive beds of auriferous gravel exist there which the owners have never been able to work for want of water. From this point to Blue Tent on the line of the proposed ditch there are other extensive deposits of auriferous gravel every few miles, and doubtless the whole of the water of the ditch now building might be sold to good advantage, sufficient to make the ditch enterprise a success within itself, not taking into consideration the large body of gravel owned by the company at Blue Tent, where ultimately all of the water will be used to much greater profit. It is fortunate to have intermediate points along the line of the ditch where water can be sold in increasing quantities as the work approaches the point where the company's deposits of auriferous gravel, consisting of over 400 acres in a solid body, and of an average depth of from 400 to 500 ft., is located. This, without the facilities for sales of water, which are known to exist along the line from Diamond Creek to Blue Tent, appear to fully justify the company's proposed ditch outlay, which it is understood will not exceed 18,000l., or 20,000l. The section to Diamond Creek, now nearly completed, covers about half of the cost of the whole work, and embraces all the heavy and costly fluming. The balance of the work, it is understood, will be prosecuted to completion the coming spring and summer; meantime, with present appliances, much better results may be expected for the coming water season than has been realised by the past. The washings in the South Yuba claim have just reached the channel, or blue lead, from which large returns may henceforth be expected; and it is not likely that the Enterprise claim, which has during this year yielded gross something like \$50,000, will yield less the coming season, as it has got through the usual drawbacks of incipient working. Some idea can be formed of the confidence of Californian capitalists in ditch and gravel enterprises when it is known that with their proverbial high rates of interest they are not loth to invest millions of dollars in such undertakings. Instance the North Bloomfield Company, whose gravel beds lie about four miles north of Blue Tent on the same channel, who have expended over \$1,700,000 in running a tunnel, and building a ditch to utilise their property, and on every divide between rivers throughout California where gravel deposits exist water rights are being secured, and canals constructed at great cost. Cedar Creek, 1½ to 1¾; there is no fresh news from Col. Ludlum this week. All work has been shut down for the season, except washing on Yankee claim.

Birdseye Creek, 2½ to 2¾; a letter from the agent appears in another column. Mr. Powers says that from present appearances he anticipated being at solid bank in Neece and West claim by the end of September. This would give him a splendid face of auriferous gravel on which to commence washing with the new water season. Malpasso, 3 to 4; Rica, 3 to 4; Malabar, 3 to 4; the latest advices appear in another column. Tolima, 3 to 3½; the estimated value of the July consignment of ore amounts to \$11,372, obtained at a cost of \$8649, thus showing a gross profit of \$2903, representing a sterling value of 4837.

Colorado Terrible, 3½ to 3¾; that attention will speedily be directed to these shares there can be no question, as the mine has hitherto done well with a vein of a few inches in width, and now that the same has opened out into a course of ore over 2 ft. solid galena, as given in our report in another column, the output of first-class ore will be trebled; in fact, should the lode as now met with in the 6th level continue the same its value is nearly 800l. per fathom. Should it continue for one stop only it will prove a boon to the shareholders. The returns for August are much in excess of previous months, the lode having been more productive of first-class ore in consequence of its increased solidity.

Almaden and Tiritio, 3 to 4; the profit for August amounted to 1181l., for the corresponding month of last year the profit was 1576l.; the profit for July was 726l.

Cape Copper, 26 to 28 (ex div.); New Quebrada, 3 to 3½. Rio Tinto, 4½ dis. to par; good progress is reported with railway and pier, on which 3963 hands are employed, and at the date of the last advices 400 tons precipitate and 250 tons pyrites were being loaded.

United Mexican, 2½ to 3; in the new concern a communication between the mine of San Miguel, and the workings in San Antonio has been effected, and work has been resumed on the ore in San Antonio. The extraction in four days was 76 cargass, and in the lowest workings 11 cargass, of 6 marcos (33 ounces per ton), were thrown down.

Sierra Buttes, 2 to 2½; Plumas Eureka, 1½ to 2. Independence, 2½ to 2¾; the advices from the mine report that the stamps fully employed, and the 4th level still in good pay gold quartz. A telegram with the result of September clean-up is expected during next week.

Port Phillip, 9-16ths to 11-16ths; the quantity of quartz crushed for the four weeks ending July 15 was 5140 tons; pyrites treated, 30 tons: total gold obtained, 882 ozs. 18 dwts., or an average per ton of 3 dwts. 10½ grs. Receipts, 3481, 7s. 3d.; payments, 3347, 3s. 6d.

profit, 134, 3s. 9d., which, added to last month's balance of 128, 13s. 7d., made an available balance of 262, 17s. 4d., which was carried forward to next month's account.

Scottish Australian, 1½ to 1¾; the sales of coal for the month of July amounted to 10,281 tons. A completed return for June has been received, showing that the sales for that month amounted to 16,356 tons, instead of 14,769 tons as previously reported.

Van, 20 to 25; there is no alteration reported from the mine. On Thursday the directors declared a quarterly interim dividend of 10s. share, payable on the 21st. inst. Van Consols, 2½ to 2¾; a meeting of this company was held yesterday at the Inns of Court Hotel, when the proposition of the directors to form a supplemental company to work the eastern ground, as well as the Van Consols proper, in a more vigorous manner was agreed to by a numerously attended and most influential body of shareholders. Bog, 3 to 4; the directors have received a circular respecting the reorganisation of the company. They propose to form a new concern with a capital of 37,500l., divided into 15,000 shares of 2½ 10s. each. The shares to be issued to persons at present on the register as with 20s. paid on them, thus leaving a liability of 30s. per share, which is considered sufficient to pay off all the indebtedness, and leave a sum enough to carry on the recommendations made by Capt. A. Waters, in the report published by us about a fortnight ago. There does not appear to be any reason why the shareholders should not ultimately get back the whole of their money—that is if they come forward now and take up the new scheme. We are assured that the directors will not attempt to carry out the reconstruction unless the shareholders give them substantial encouragement. The mine is looked on most favourably in the district, and from all accounts is well worthy of the prompt support of the shareholders. Pennerley, 1½ to 1¾; a full report appears in another column. The mine continues much as of late. The intersection of the junction of the Big Ore Warm Water lode is an encouraging feature. West Esgrail L. 2½ to 2¾; from a report which appears in another column, it would seem as though this company were on the point of making a good discovery, the end of the cross-cut having every indication of being near the ore-bearing part of the lode. In the level above there is a good course of ore gone down in the bottom.

Devon Consols, 1 to 1½; since the publication of the four-monthly report an improvement has taken place in the 145 fathom level east, on the new south lode, which is 5 ft. wide, and a good course of ore, worth 8 tons or 40l. per fathom. In the 130 east the cross-cut has reached the north wall of the lode, proving it to be altogether 20 ft. wide—a fine lode of ore, worth 65l. per fathom. The driving of this level (the 130) has been resumed east of the cross-cut, on the south portion of the lode, and the width carried (5 ft.) is a good course of ore, worth fully 7 tons or 35l. per fathom. Penstruthal, 3 to 4; the first sale of tin ore yesterday realised 58l. per ton. Mine opening out satisfactorily.

Subjoined are the closing quotations:—Bog, 3 to 4; Carn Brea, 55 to 57; Cook's Kitchen, 9½ to 10; Devon Great Consols, 1 to 1½; Dolcoath, 46 to 48 ex div.; East Caradon, 1 to 1½; East Lovell, 11 to 12; East Van, 3 to 4; Great Laxey, 11 to 12; Hingston Down, 1 to 1½; Marke Valley, 20 to 22; Pennerley, 1½ to 1¾; Perkins Beach, 1-16 to 3-16; Parys Mountain, 7s. to 9s.; Penstruthal, 10s. to 12s. 6d.; Roman Gravel, 13½ to 14½; South Condurrow, 3 to 3½; Tincroft, 30 to 31; Tankerville, 7 to 7½; Van, 20 to 25; Van Consols, 2½ to 2¾; West Bassett, 8 to 8½; West Chiverton, 1½ to 2; West Tankerville, 4½ to 5; Wheal Grenville, 4½ to 4¾; Almaden and Tiritio, 3 to 4; Birdseye Creek, 2½ to 2¾; Cedar Creek, 1½ to 1¾; Cape Copper, 26 to 28 ex div.; Colorado Terrible, 3½ to 3¾; Chontales, 3 to 4; Don Pedro, 3 to 4 dis.; Eberhardt and Aurora, 5½ to 5¾; Emma, 1½ to 1¾; Flagstaff, 2½ to 3½; Frontino and Bolivia, 5s. to 10s.; Independence, 2½ to 2¾; Last Chance, 3 to 4; Malpasso, 3 to 4; Malabar, 3 to 4; New Pacific, 3 to 4; New Quebrada, 3 to 3½; Port Phillip, 9-16 to 11-16; Rio Tinto, 4½ dis. to par; Rica, 3 to 4; Richmond Consolidated, 6½ to 6¾; Sweetland Creek, 2½ to 2¾; St. John del Rey, 240 to 250; Sierra Buttes, 2 to 2½; Utah, 4 to 5; United Mexican, 2½ to 3; South Aurora, 3 to 4; Blue Tent, 5 to 5½; Holscombe Valley, 1 to 1½; West Esgrail L. 2½ to 2¾.

COLLIERIES AND IRONWORKS.—The following shares, with a few others, have been most in request:—Thorp's Gawber Hall, Bilson and Crump, Whitehaven Iron, Cardiff and Swansea, Cleve Hill, Chapel House, Pelsall Coal, New Sharlstone, Welsh Freehold, Ebbw Vale, and Chillington Iron. The Stock Exchange Committee have appointed to-day a special settling day in the First Mortgage Debenture Bonds of the Dynevor, Dyffryn, and Neath Abbey United Collieries Company (Limited); the bonds carry 5 per cent., and are in amounts of 100l. each. Bilson and Crump, 10½ to 11½; United Bituminous, 10s. to 12s. 6d. Advices just received from the Lehigh and Wilkes Barre Coal Company state that the men are now working full time, and the shipments are, in consequence, at the rate of about 14,500 tons daily; the interest and principal is guaranteed by the Central Railway Company of New Jersey. The directors of the Bettws Llantwit Colliery announce that the guaranteed dividend will be paid on the 1st inst., at the Alliance Bank. Welsh Freehold, 3 to 3½; Cleve Hill, 8s. to 10s. The Llangelech Collieries Company (Limited) give notice that the half-year's interest on their debentures will be paid, as usual, at the London and County Bank, Lombard Street, on or after Oct. 1. Ebbw Vale, 5½, 4½ dis.; Lehigh and Wilkes, 9s. to 9½; Rhymney Iron, 35 to 40; West Cumberland, 6½ to 5½ dis. There is to be no dividend given to the shareholders of the People's Coal and Colliery Company (Limited), but the directors have entered into an arrangement, by which they will have the option of buying coal at about 3s. per ton below the ordinary price of dealers. Whitehaven Iron continues to be enquired for; the price is now 5l. to 6l. Cardiff and Swansea, 3½ to 3¾; Chapel House, 4 to 4½; Thorpe's Gawber Hall, 15½ to 16½. Central Swedish Iron, 4 to 6; at the meeting on Wednesday the report was adopted. There was no dividend, owing to loss upon the stock of raw materials, purchased in the early part of the year at unprecedented high prices, the great decline in the price of manufactured iron, and other drawbacks, the net profit is less than 3000l. The blast-furnaces, too, from which great things are anticipated, have only been in operation for six months out of the period embraced by the accounts. These, with the Bessemer Steelworks, however, have given highly satisfactory results, both as regards quality, economy of working and yield. Prof. Forbes, in his report, estimated the production of the two new furnaces at 5599 tons per annum, whereas the average of the actual produce from the commencement of working up to the last account has been at the rate of 7250 tons per annum. The directors propose to raise the sum of 25,000l. in loans or debentures, to provide working capital until the Frotna estate is sold. The accounts are treated very concisely and clearly, and an exhaustive report, by Messrs. Fletcher and Co. accompanies the balance-sheet. Istoback Colliery, 9½ to 10. Nant-y-Glo have declined 1l., and close 48 to 50. Pelsall Coal, 12 to 14; New Sharlstone, 8½ to 9½. Bilson and Crump Meadow shares have advanced to 1, 1½ premium. West Mostyn 12 per cent. preference are without change at ¼ to ¾ premium. Newport Abercrom firm at ¼ discount. The first coal from the colliery was delivered at Newport on Saturday last.

At Redruth Ticketing, on Thursday, 1760 tons of copper ore were sold, realising 9036l. 2s. The particulars of the sale were—Average standard, 105½ 3s.; average produce, 7½; average price per ton, 5l. 3s.; quantity of fine copper, 131 tons 19 cwt. The following are the particulars of the sales:—

Date.	Tons.	Standard.	Produce.	Perton.	Per unit.	Ore copper.
Sept. 2.	782	£104 6 0	7½	£4 17 6	13s. 2d.	£65 19 0
17.	3532	105 0 0	6¾	4 9 6	13 0½	65 2 0
Oct. 1.	1760	105 3 0	7½	5 3 0	13 8	65 9 0

Compared with the last sale, the advance has been in the standard 3l. 12s., and in the price per ton of ore about 5s. 6d. During the quarter ending Sept. 30 the sales amounted to 12,220 tons, of the average produce of 7½ = 882 tons 2 cwt. of fine copper, which realised 57,488, 8s. = 4l. 14s. per ton of ore. The average standard was 105½ 3s.

The directors of the SOMERSET AND DORSET RAILWAY COMPANY are inviting subscriptions at par for 110,000. FIVE PER CENT. DEBENTURE STOCK, secured upon the Extension to the Midland Railway at Bath, and the interest, which ranks next immediately after the interest (namely, 6000l. a-year) on the 120,000l. of Extension Debenture Stock already issued, is payable out of the gross receipts of that extension. The line was opened for public traffic on July 20, and a through service of trains has been established between the system of the Midland Railway and Bournemouth, Weymouth, and the whole of the South and West of England. Special advantages are secured to the extension capital by the terms of the Act of Parliament under which the original line is charged, not only with the payment of its own working expenses, but also with the working expenses of the extension line, and (together with the extension line) with an annual charge of 17,000l. The gross receipts of the extension line are, therefore, available (subject to the above) for payment, in priority to all other interest or dividend, of the interest at 5 per cent. on the extension debenture stocks of 120,000l. above-named, and 110,000l. now offered for subscription, amounting together to 11,500l. per annum, or 8l. 10s. per mile per week of gross receipts, while the actual average gross receipts already amount to 17l. per mile per week, although the traffic is naturally in so short a time quite undeveloped. The estimated traffic amounts to 48,352, per annum, or upwards of 36l. per mile per week, and there is every reason for believing that it will exceed that sum. The prospectus will be found in another column.

MANAGEMENT OF PUBLIC COMPANIES.—Messrs. Harvey, Jordan, and Company have established themselves in Moorgate street, for the purpose of carrying on the various descriptions of office business connected with the management of mines, such as the inspection and reporting on mines and mineral properties, the general management of mines, including periodical inspection of the mines. Mr. C. J. Harvey has had a mining experience of over 30 years; 12 years of which were passed in the important position of mining manager of the Clunes and Port Phillip Companies. Mr. C. Jordan has had a valuable experience of 17 years in the well-known firm of Messrs. J. Taylor and Sons, of Queen-street-place.

Notices to Correspondents.

* * Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt; it then forms an accumulating useful work of reference.

PETHERICK.—Mr. J. H. Petherick, of Pachuca, Mexico, who is understood to be in England, is requested to send his address to the Mining Journal Office for a correspondent.

PURCHASE-HIRE OF RAILWAY WAGONS.—Will any correspondent of the Journal kindly forward me, or state where I can obtain, a blank form of the contract which has to be signed when railway wagons are had upon the condition that after hire has been paid for a certain number of years they become the property of the hirer? Could a couple of hundred of colliery trucks be obtained on the same terms?—H. E.

WEST CHIVERTON.—We could not insert the letter from "Shareholder" without the writer's name being appended. Such personal reflections cannot justifiably be published anonymously; while it has not been shown that Mr. Granville Sharp has not acted as he has in the interests of the shareholders. Prejudice more than reason seems greatly to have influenced "Shareholder" in writing his long epistle.

COAL MINING IN ITALY.—SASSO FORTE COLLIERIES COMPANY.—The letter from Mr. W. J. Jacob (Rocca Tederighi) shall appear in next week's Journal.

NORTH WHEAL BASSET.—In March, 1873, I received a note from the Chairman, stating that the affairs of this company had been taken out of the Stannary Court at the expense of one of the committee; and in a note I saw in the Journal this gentleman stated that the debts amounted to little over 150*l.*, and he hoped that the works would now proceed with vigour. May I respectfully ask if anything and what is going on?—W. G.

SIR.—Can any of your readers inform me if the Wye Valley Mine, now being brought before the public, is the same as the Wye Mine, Llanidloes?—ONE INTERESTED.

MICA.—In the Journal of Sept. 19 there is an article on Mica, which treats principally of mica in plates. I shall be glad if any of your readers can inform me whether mica in the massive state is of any value, and, if so, for what purpose it is used?—B.

Received.—"A Reader" (Rochdale): The details were forwarded by a correspondent. We are always glad to receive such information—"L. U. R." (St. Louis)—"B. S." (Hexham)—"C. E. P."—"Reader" (Wigan)—"Florence"—"A Shareholder" (Lancashire) had better write to the office for the information he requires—"Mentor"—"Miner" (Redruth) should send his reply to the journal in which the communication referred to appeared—"Diamond Drill." Next week.

THE SUPPLEMENTARY SHEET.—We have received occasional complaints, and of late a good many, that the Journal is delivered by country booksellers without the Supplement. Subscribers would oblige us by demanding that the paper should be handed to them complete, as every Journal is accompanied by the Supplement when it leaves our office, and the fault of omission must rest with the country bookseller or their London agent.

SCALE FOR ADVERTISEMENTS.—Our charge for general advertisements is—for six lines and under, 4*s.*; per line afterwards, 8*d.* Average, 12 words per line.

THE MINING JOURNAL.

Railway and Commercial Gazette.

LONDON, OCTOBER 3, 1874.

THE CONSUMPTION OF COAL.

Once at least every year we are treated to a learned dissertation on the probable exhaustion of our coal fields, at times by writers of eminence, who appear to have mastered almost every subject that can interest the scientific, the practical, or the general reader. This year has been no exception to the rule. Sure to command attention, the coal question is a favourite one with many able and philosophical minds, and their conclusions would be different to what they generally are were they to take more notice of facts, and go less into the region of speculation. Many of the writers who have handled the subject, and aired their own peculiar views with respect to the future of our coal supply, consider that consumption will go on *pari passu* with the increase in our population. To some extent, this view was held by the Select Committee on Coal in their report to the House of Commons last year, in which it is stated that "The present consumption of coal for domestic use is generally estimated at 1 ton per head for the whole population, and may be assumed to absorb one-third of the entire production. It is probable this rate per head will continue pretty constant, because more economical methods of using coal in dwellings may yet be introduced, yet the increasing wealth of the nation will cause coal to be more liberally used for domestic purposes. The future increase of consumption under this head may, therefore, be expected to coincide with the increase of population." So far as the year has gone this has turned out incorrect, and this is more particularly the case with respect to the metropolis, for we find that the total quantity of coal which was sent there for the eight months ending August last by rail, sea, and canal was 4,694,196 tons, against 5,012,373 tons for the corresponding period of 1873, showing a decrease of 318,177 tons, notwithstanding the large increase that must have taken place in the population. This will give considerably less than 1 ton per annum for the whole of the population for domestic purposes, for it must be recollected that a great deal of the coal sent to London is used for manufacturing purposes as well as for marine and locomotive engines, whilst nearly one-fifth of the entire tonnage is absorbed by the gas companies, for the quantity that went to them in 1873 was no less than 1,430,937 tons. Taking the population of the metropolitan districts (estimated in 1872 at 3,977,569) at 4,050,000 in 1873, it is evident that the actual consumption for household purposes in London is very much less than that estimated by the Commissioners in their report, so that in all probability $\frac{1}{2}$ ton per head of the entire population is much nearer the mark. So much for the report of the Royal Commission.

One of the most recent of our alarmists with respect to the exhaustion of our coal fields is Mr. W. R. GREG, who, in a paper published in the "Contemporary Review," under the title of "Rocks Ahead, or the Warnings of Cassandra," indulges in some very bold assertions with regard to the probable decadence of England, owing to the working out of her supplies of coal. He states that "It is obvious, unless some great check should come to our prosperity, and to our increasing population and manufacturing productiveness, our annual consumption of coal will go on augmenting, and will soon reach, not 120,000,000 tons yearly, but twice, thrice, or four times that amount." That such an extraordinary change is soon to take place appears to be preposterous, for, as we have shown above, the increase in the consumption of coal does not go hand in hand with the increase of population, whilst there are many reasons why consumption should not go on at the rate it has done of late years. It is admitted, for instance, that there is nearly as much fuel wasted in some of our manufacturing processes as is really utilised, and that we have not up to the present time made much headway in the adoption of means by which no portion of our coal should be lost. But such, we believe, will not always be the case, for despite the warnings of Mr. GREG science will not stand still to allow of the fulfilment of his prophecies. So far from that, we find even at the present time efforts are being made by engineers and others to utilise every particle of coal used in the smelting of iron and for manufacturing purposes, so that there is not the slightest reason why there should not be a decreased consumption in those directions, or that we should have our chimneys, large and small, comparatively free from smoke, and our mining and manufacturing centres far more healthy and pleasant than they now are. This is what has long been looked forward to, and will no doubt ultimately be accomplished. Of late years there has been a great saving effected in the North of England in the smelting of ironstone, for the leading ironmasters, according to Mr. I. LOWTHIAN BELL—one of the greatest authorities we have on the subject—have reduced the consumption of coal to make 1 ton of pig-iron from 70 cwt., down to from 41 to 45 cwt., showing a saving of something like 40 per cent. The same gentleman, in his evidence before the Select Committee of the House of Commons last year, said that he considered it was quite possible to economise between two millions and three millions of tons of coal annually in the make of pig-iron alone. Again, it is far from likely that gas will forever continue to be made from coal, seeing

that there are various other means by which a much greater illuminating power can be obtained. With every respect, then, for Mr. GREG, we cannot admit the soundness of his views as to the probable exhaustion of our coal fields, and the consequent loss of our position as the manufacturing centre of the world. Indeed, it appears to us premature to speak of our coal fields as to what they are capable of producing, seeing that their extent and boundary is as yet unknown, for we find that new discoveries are constantly being made. We, therefore, do not think we need trouble ourselves with respect to the time when our collieries will be closed, or believe that the consumption will increase to such an extent as some people imagine, for we have shown that there are various ways in which it will be greatly economised, a process, in fact, which is going on at the present time.

The position taken by Mr. GREG has been assailed, and successfully, we think, in the "Contemporary Review" for September, by Mr. ARTHUR ARNOLD, in a paper entitled "Free Sailing," and who ridicules the idea of our coal being worked out in a given time, or that the rate of consumption can be defined by arithmetical progression. Mr. GREG quotes a sentence from Sir W. ARMSTRONG, and it is quoted by Mr. ARNOLD; and it is undoubtedly to the disadvantage of the former, whilst it supports our own views with respect to our future consumption of coal. Sir W. ARMSTRONG's words are—"Speaking generally of coal consumption in all its branches, there can be little doubt that, without carrying economy to its extreme limits, all the effects we now realise from coal could be attained with half the quantity we use." This shows that a great deal has yet to be done before the true value of coal is extracted from it, and how much is left to be achieved by men of science in the present and the future, and how little we have to fear the exhaustion of our stores of fuel for long ages to come. Speaking of the coal famine, however, Mr. ARNOLD makes what we cannot but consider a glaring mistake, for in alluding to it he says that one of the results "was the opening in North Derbyshire alone of pits which are now beginning to turn out a supply of 60,000 tons per week, not an atom of which was available before the coal famine." Speaking with a full knowledge from frequent visits of the progress of coal mining in Derbyshire during the last ten years, we have no hesitation in saying that the statement is incorrect, for the quantity named would be equal to an increase on the entire production of the whole of Derbyshire of 60 per cent. over the output of 1872. But we agree with Mr. ARNOLD that in all probability 1200 years will not find us without coal, and we really cannot see what is to be gained by these constant speculations of writers with respect to our beds of coal. Stimulate and promote economy in every possible way, we say, so as to prolong our stores of fuel for future generations, and for the benefit of the present one; but these constant warnings and alarms will have no effect upon our colliery owners, who will go on raising as much coal as they can find markets for, whilst they will be ineffectual in delaying the opening out of the many new pits now in course of sinking in nearly all our mining districts.

MWYNDY IRON ORE COMPANY.

This company having acquired one of the most improved machines of the Diamond Rock Boring Company re-commenced boring on their Trecastle property on 12th August last. They reached the bed of iron ore at the depth of 113 feet, and passed through ore 13 feet in thickness, next 16 feet of iron-coloured limestone, and then a second bed of iron ore 5 feet thick, and the boring was stopped on 19th September at the depth of 149 feet.

This hole is the fifth sunk by the Mwyndy Company on their Trecastle property by the diamond borer, and by these operations they have proved at a small cost the existence of a valuable bed of ore.

The borer has now been removed to a spot 200 fathoms east of the above hole, and they are already some distance down.

The directors expect when the ore in the hole has been bored through they will then have no difficulty, by the aid of the sections of the various holes, in fixing on the most advantageous place for sinking the shaft, which will at once be vigorously proceeded with.

INDUSTRIAL CO-OPERATION.

This is a phrase easily written, but it is one susceptible of many meanings, and one which will convey different ideas to different minds. We only propose now, however, to refer to that idea which has brought about co-operative engine works, co-operative mines, and not a few other enterprises of a cognate nature. Many a learned chapter, from the days of ADAM SMITH downward, has been written on the relations of capital and labour to each other. Divers have been the theories elaborated on the subject, but no political economist has ever yet held that the one can exist without the other. Any system which does not award to each its just rights is faulty; and some—as, for instance, communism—are simply tyrannical and dishonest. All the difficulties of legislation in these days of freedom which have been, and which remain to be, encountered arise from attempts on the one side or the other to make labour the slave of capital, or vice versa. Half the wars in the world from the very beginning have been attempts to obtain by the conqueror the labour of the conquered; and the old maxim *vix victis* meant as much as anything slave labour. Co-operation, on the other hand, means the investment of labour with capital. Thoughtful working men have discovered that capital has the same right to be protected as labour, and that it is only by their union that satisfactory results can be obtained for all. Out of their cogitations came the idea of co-operation. At first it was tried only in the matter of shop-keeping, and the idea was that of an unlimited partnership. It did not succeed, except in a few cases, where the constituents were numerous and the district prosperous. At length the principle began to assume a more definite form—to be tabulated, as it were. And it took this form, that the consumers, being able to produce the custom without which no trade can exist, should furnish their own supplies. This principle has proved wonderfully successful in divers retail undertakings, particularly in Halifax, Rochdale, Oldham, and other densely populated towns in Lancashire. The men who originated—or those who latterly have been at the helm—are persons to whom it would be no exaggeration to attribute great financial genius, so ingenious and so satisfactory are the arrangements in which the profits are divided between consumers and capitalists.

It is obvious, however, that when capital, generally in small amounts, came to be applied to productive works—to manufactures and productions of various kinds which must compete with what may be called single handed capital—difficulties must arise. The mainspring of co-operation is the principle of making the workmen employers as well as employed, and so giving them an ever-increasing and direct pecuniary and personal interest in the work done. This is effected by each worker leaving a definite proportion of his earnings to become share capital, and although he may increase his stake by bringing in any former savings he might have accumulated, no one is allowed to lessen his capital. One of these concerns, of which there are now a good many in the North of England, is the Ouseburn Engine-works Company, Newcastle-on-Tyne. It arose three years ago out of a strike, but at the annual meeting last week the Chairman, Dr. RUTHERFORD, said that its object was to solve the great problem of how to join capital and labour and prevent strikes. He complained of unfair competition on the part of other manufacturers, and of "a deliberate and systematic attempt to shut them out of the market for material," in consequence of which they had for a long time great difficulty in procuring coal and iron to supply their wants. It appears, too, that they had been hindered by a strike amongst themselves, and a revolt of their boiler makers had produced a loss of profits to divide which the Chairman estimated at 5000*l.* or 6000*l.* In spite of all these difficulties he congratulated the shareholders—that is, the workmen—on having made their mark in the engineering world, and pointed with pride to the success of the engines they had put into the screw steamers *Van der Laan* and the *Ly-ee-moon*, both of which had made most successful trial trips, the latter on the Thames, and combined a smoothness of working with a minimum consumption of fuel, quite unusual. The report was adopted with unanimity, but this brotherhood of labour appears to possess no immunity against aggrieved shareholders, and there was a considerable squabble over the election of a new director. The dif-

culty, however, was surmounted without going to a poll, the Chairman was re-elected, and the proceedings terminated with a vote of confidence in that gentleman.

CHAPEL HOUSE COLLIERY.

From reliable information which has reached us, we are able to give our readers some satisfactory particulars of this company's working since its commencement, at the end of last year, to the end of August last. The output, notwithstanding the numerous strikes and other causes for intermission of work in the district, was 63,614 tons during that period. The demand for the company's coal, which is wanted almost exclusively for shipping purposes, has been such that a further 10,000 tons and upwards were purchased to supply the requirements of the customers, the company acting as merchant, and, of course, deriving profits on the transaction. Apart from the merchant's profit thus earned, the evidence given by the large requisitions for the coal is especially satisfactory, as proving that a ready market will be found for the increased raisings which the company will be enabled to make ere long.

The plant belonging to the colliery is of a very complete and efficient nature. When the delivery of the new wagons lately ordered is completed the company's plant, for carriage and shipping, will consist of 200 railway wagons, 26 flats or lighters, and 3 schooners. With such means at command no difficulty can be experienced in delivering coal to customers in much larger quantities than can now be raised; but new pits are being sunk to the lower seams, and when these reach the coal the output (and with it the profits) will be much larger than at present.

That the colliery is being energetically managed may be readily seen from the remarks we have already made; and that the management is as economical and substantially satisfactory as it is energetic will appear from the following figures:—The cost of raising during the period already referred to has averaged 3*s.* 5*d.* per ton for labour, and a further 2*s.* 3*d.* (making a total of 5*s.* 8*d.* per ton) has covered other charges, such as stores, timber, railway freight, and delivery at Liverpool. The average selling price throughout the same period has been 13*s.* 3*d.* per ton, leaving a very large, and, to the shareholders, a very pleasant margin for dividends.

Now, seeing that these figures are not mere estimates, but are the results shown by actually accomplished facts, the Chapel House Colliery deserves to be considered as a most carefully and successfully managed property. And the effect of this careful management of what we believe to be a most valuable colliery is that quarterly dividends at the rate of 15 per cent. per annum are being paid regularly, and we understand a good balance of profit is carried forward each quarter. The next quarterly dividend is now nearly due.

ECONOMISING STEAM.—THE BAXTER ENGINE.—In the Supplement to this day's Journal will be found an illustrated description of the Baxter Steam Engine, which for some time past has been attracting considerable attention in the United States; it appears that the engine consumes only about half the fuel required by ordinary engines; that with it one man can perform the labour of three or four, and that it occupies very little space as compared with the engines, boilers, and furnaces generally used. The engine and boiler are always ready for use, and from the testimonials of efficiency received by the manufacturer—Mr. W. D. RUSSELL, of Park Place, New York—it appears to be giving very general satisfaction. The parts of the Baxter engine being interchangeable, the breakage or failure of any piece need cause but little inconvenience. The workmanship is excellent, so that durability will have to be added to the other advantages of the motor, and it is considered that when the engine becomes more generally known it will be more largely adopted than any other.

COAL AND IRON IN THE UNITED STATES.—The replacement of the wooden spans of the Philadelphia, Wilmington, and Baltimore Railroad bridges over the Susquehanna river, at Havre de Grace, with iron is progressing rapidly. Each span weighs about 200 tons, and is composed entirely of wrought-iron. A new branch of industry has recently been established at Camden, New Jersey—that of manufacturing galvanised iron. This business is carried on by the Reynolds Iron Roofing Company. The anthracite coal movement of Pennsylvania to September 5 this year amounted to 12,151,129 tons, against 13,474,820 tons in the corresponding period of 1873, showing a decrease of 1,323,691 tons. The bituminous coal movement of Pennsylvania to September 5 this year amounted to 2,240,315 tons, against 2,047,277 tons in 1873. It appears that the United States produced last year 2,290,658 tons pig-iron, exclusive of charcoal pig; 721,775 tons of iron rails, 980,000 tons of rolled iron of other kinds, 128,200 tons of Bessemer steel rails, and 40,000 tons of cast-steel.

MANUFACTURE OF IRON IN INDIA.—With a view to adopt some definite line of action in regard to the manufacture of iron in India the Government some time ago called for detailed information on the subject from the various provincial Governments. The result is a resolution embodying an account of the latest discoveries in connection with iron deposits and the mineral resources in the proximity whereby they may be utilised. Both the coal and iron in the Raneeungee field contain phosphorus, which exercises an unfavourable action in the manufacture of good iron, and there is the further difficulty of procuring materials for promoting fusion. Mr. Hughes, of the Geological Survey, however, thinks that the limestone known as *kunkur*, which abounds in the neighbourhood of the iron ores, may be found useful as a flux. Another means suggested for surmounting this difficulty is the application of Mr. Siemens' process of making malleable iron direct from the ore, which would in a great measure remove the necessity of a flux. It is proposed that specimens of iron ore from different parts of the Raneeungee field be sent to England to be subjected to this process, and the Government of India are prepared to forward thither at the public expense consignments of the ore for that purpose. Offers from those interested are invited, it being understood that the consignments are not to exceed 100 tons in weight. Kumaon is altogether condemned as an iron-working district; on the other hand, the prospects of iron manufacture in the Central Provinces have been improved by the discovery of coal at Lohara, where iron deposits are found, and iron ores close to the coal field of Warrora. The chief commissioner is to be asked to report upon the facilities for establishing a Government iron manufactory in the neighbourhood of Lohar. In South-west Behar, at Palamow, there is a field open, which private enterprise might advantageously occupy. Of all the specimens of iron ore analysed that from Palamow has been found the purest. The ore is also a coal deposit close there, and if the field turns out to be promising, and private enterprise will avail itself of it, Government offers to improve the communication between Palamow and the head of the Soane canal.

COMMERCIAL PROGRESS OF NEW ZEALAND.—New Zealand beginning to show a sure sign of growing importance by forming a "manifest destiny" theory. Mr. Vogel, the Premier, has lately taken on the table of the House of Representatives a remarkable scheme for extending the influence of New Zealand over the whole of Polynesia. It is his belief that New Zealand must sooner or later become the sooner the better—make herself the centre of a Polynesian dominion, having the same relation as Canada to the Mother Country. At present, Mr. Vogel says, the colonists cannot regard without alarm the disorders that prevail in some of the islands, and the prospect that some foreign power may obtain a footing in their own neighbourhood. It has been proposed as a means to the great end of trading company shall be formed in England, with a view of obtaining by its commercial power a large share of political control in the islands. Mr. Vogel approves of this scheme, but carries it further by suggesting that the New Zealand Government shall have an important share in the management of the company. The company is to be, in fact, a Government scheme, New Zealand guaranteeing 50 per cent. for 40 years on the share capital of 1,000,000*l.*, and appointing a managing director and secretary. The company is to have permission to carry on the business of merchants, and shipowners, planters, producers, manufacturers, brokers, agents, insurers, &c.

and money lenders, in the islands of the Pacific, New Zealand, and Great Britain, and also elsewhere, with the permission of the Government of New Zealand! In return for Government aid the company is to give facilities and reasonable pecuniary aid to missionaries, to abstain from employing forced labour, to establish regular steam communication between the islands and New Zealand, to set up in New Zealand at least one cotton factory, at least one woollen factory, and at least one sugar refinery; to forward all produce to New Zealand; and to ship from the same place all goods sent by the company to the islands, at the same time paying a royalty on all goods shipped to Polynesia which are not the produce of New Zealand. Such are the main outlines of a scheme which, whatever its defects, is certainly not wanting in comprehensiveness and vigour of conception. It is added that the Home Government has already been made acquainted with the project. Its answer, however, had not come to hand at the time of the dispatch of the last mail.

DRAINING COLLIERIES IN GERMANY.—Mr. Henry Davey (of the firm of Hathorn, Davis, Campbell, and Davey, San Foundry, Leeds) has just returned from Germany with commissions to carry out some extensive pumping schemes for collieries in Westphalia. These undertakings embody some very important improvements, effected by Mr. Davey, over the old methods of dealing with water. A brief outline of one of the schemes will doubtless interest our readers. The quantity of water to be dealt with is very great, and the depth of the pit is 1200 ft. At a point in the mine 900 ft. from the surface, two 300-horse power compound differential engines and pumps are to be fixed, capable of lifting the water to the surface, and also of supplying power to two hydraulic pumping-engines placed at the bottom of the mine, and employed in lifting the water to the main engines. The main engines are thus 300 ft. from the bottom of the pit, so that the whole of the workings below that level may be flooded without their being lost. The scheme thus embraces two most important points. The old cumbersome and expensive system of pitwork is dispensed with by placing the main engines and pumps underground, and carrying down steam to them; and the safety of the engines from flooding is secured by placing them 300 ft. above the bottom, and employing hydraulic engines to lift the water to that level. The hydraulic engines will work equally well under water, and are under control from the main engine-room.

HINGSTON DOWN MINING COMPANY.—As a contrast to the proceedings of many of the mines in Cornwall and elsewhere, we feel a pleasure in referring our readers to a paragraph in another column, with respect to the conduct of the affairs of this mine. It appears that at a meeting of the board of directors, held a few days since, it was determined to make a call of 9000, not only to meet present wants, but also to avoid the necessity of discounting ore bills for the future, and to place the mine in a sound financial position. When accounts are now being furnished to shareholders by many mining companies showing their indebtedness to merchants and bankers, to the tune of thousands of pounds, and in more than one instance of paying dividends notwithstanding, it is a satisfaction to refer to the actions of the gentlemen comprising the board of directors of this company, and their evident desire to place the property of their co-shareholders in such a position as to ensure for them a genuine and *bona fide* security. We are officially informed that every known debt of the mine (including merchants' bills) is paid to the 8th of last month (September), and, exclusive of the current costs, not a single liability is in existence. This is mining as it should be, and were pursers and committees in Cornwall to follow the example here set them a far better feeling would exist in the minds of those who are rendering, and are still willing to render, that assistance the county now so much stands in need of.

REPORT FROM SCOTLAND.

Sept. 30.—The Warrant Market has been very firm during the past week at higher prices. On Wednesday as low as 84s. was accepted, but a steady improvement took place, and the closing price on Friday was 86s. 6d. On Monday a good business was done between 87s. 3d. and 87s. 9d., closing at the best. Yesterday the market opened firmly, and business was done from 87s. 9d. to 89s., closing with sellers at the higher price. To-day the tone has again been firm, with business from 88s. 3d. to 89s. 3d., closing at 89s. The demand for shipping iron continues good, and at present the supply is scarcely equal to the requirements of the dealers. The undercurrent prices again show a decided advance on the week:—

G.M.B. at Glasgow (deliverable alongside)	No. 1.	No. 2.
Garthshore ditto	117 6	117 0
Coltness ditto	117 6	117 0
Summerlee ditto	110 0	110 0
Carnbroe ditto	100 0	100 0
Monkland ditto	98 0	98 0
Clyde ditto	96 0	96 0
Govan, at Broomielaw ditto	95 0	95 0
Langloan, at Port Dundas ditto	115 0	115 0
Calder ditto	115 0	115 0
Glenburnie, at Ardrossan ditto	105 0	105 0
Eglington ditto	94 0	94 0
Dalmellington ditto	94 0	94 0
Carron, at Grangemouth, selected, ditto	110 0	110 0
Shotts, at Leith ditto	112 6	112 6
Kinnell, at Boness ditto	95 0	95 0
Bar iron	110 0	110 0
Nail rods	10 0	10 0

Week ending Sept. 27, 1873	Tons
Week ending Sept. 26, 1874	11,359

Decrease	146,354
Total decrease since Dec. 25, 1873	146,354

Imports of Middlesbrough pig-iron into Grangemouth:—	Tons
For the week ending Sept. 27, 1873	3,450
For the week ending Sept. 26, 1874	3,310

Decrease	140
Total increase for 1874	40,249

As we intimated some time ago that a lively demand would inevitably bring about a higher range of prices, we are now experiencing that higher range for warrants as well as for makers' iron, and the bareness of stocks which this temporary demand has made apparent has added a stimulus of its own to the market. But it is to be observed that the number of furnaces at work has been augmented to 113, and this number is likely to be added to till they reach a total of 130 or thereby, so that the make may be made to more nearly approach the demand, and limit the range of prices to such a sum as would prevent iron from becoming unsaleable. The stock in store scarcely exceeds 18,000 tons, and with shipments at 12,000 tons weekly—a portion of which continues to be drawn from store—surprises must be frequent and unavoidable.

The improved demand for Manufactured Iron for shipment continues, with makers' books well filled up; but the home trade is quiet and limited, although prices remain very firm. There is a little more doing in nail rods and rounds and short bars, but angles and plates are not much in demand, local requirements being placed in the North of England chiefly. The copper and brass workers are well engaged, and so are machinists, but the forges are all quieter, except those engaged on marine work.

In coils there is not much change in prices or demand for shipment, but house coal is firmer with the approach of colder weather, and prices for this description are improving. The returns from the Scotch ports show a slight falling off on the week as compared with last year, but the aggregate is less of the returns from five ports enumerated last year. The shipments as given are 42,800 tons, as against 46,777 tons in the corresponding week of last year, but they are incomplete to the extent indicated. Leith is experiencing the advantage of the strike in Fife and Clackmannan, by largely increased shipments from that port; but there is a growing feeling that the lock-out cannot be of much longer duration in these districts, as the men are getting tired of their enforced idleness and want of pay. At a meeting of the masters, held at Burntisland, yesterday, it was agreed to write the miners' secretary, intimating that the pits were now open for the men, under the conditions upon which they had been stopped; but that after work had been resumed the masters would probably grant a conference, to take the bye-laws into consideration. If the miners do not accept of the offer now given it is feared that

a somewhat less pleasant course will be resorted to. At Larkhall the strike has terminated on the masters' terms.

A dastardly outrage has been perpetrated at Pollok Colliery, near Glasgow. The colliery pay office is situated at the pit near Lochinch Farm, and it appears that a few barrels of gunpowder were kept there. The office was left all night with no fire in it at 6 o'clock on Saturday night, but some person had, it is believed, broken in during Saturday night or Sunday morning, and having laid a train to four barrels of powder known to be on the premises the result was the complete demolition of the building. The colliery books were, fortunately, uninjured, the safe having withstood the shock of the explosion, but everything else was blown to atoms. The matter is in the hands of the police, and the proprietor, Mr. Wilson, has offered a reward of 500, for evidence sufficient to convict the incendiaries. An outrage of a similar character was perpetrated a short time ago in the neighbourhood of Paisley, but the culprits have not yet been discovered. The damage at Mr. Wilson's colliery is about 1500. The property destroyed was not insured.

ENGINES FOR HER MAJESTY'S SHIPS.—Orders have just been given by the Admiralty to two local firms of note for engines for three of Her Majesty's ships now in course of construction. Those for the most powerful armour-plated turret vessel of the British fleet, the Inflexible, have been ordered from Messrs. G. Elder and Co., at a cost of 120,000; and compound engines for the smaller vessels, Sheldrake and Moorhen, have been ordered of Messrs. Napier and Sons, for something over 50000, each set.

Messrs. R. Napier and Sons launched from their yard at Govan a twin-screw spar-decked steamer of about 1000 tons and 300-horse power, intended for Government service at Japan, built to the order of Messrs. Matheson and Co., London. Mrs. R. A. Napier named the vessel Meiji Maru on taking the water.

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

Since my last report the amount of business done in this market has been very large, and prices have advanced considerably, and are still maintaining the rise. Attention has chiefly been directed to coal, iron, and copper descriptions, most of which have advanced considerably. In coal and iron, large transactions have taken place in Merry and Cuninghame and Monkland, but Shotts lead the advance with a rise of nearly 100 per share for the week, in sympathy with the strong advance in the pig-iron market. In copper, Tharsis have been in most demand, and were at one time fully 20 per share higher than last Thursday's prices, but have since relapsed a little, on the copper market becoming easier and parties realising to secure profits. Fife and Lochore and Caplethrae shares are looking firmer, although no transactions have taken place, on the prospect of a speedy settlement of the dispute between the miners and their masters in the Fife and Clackmannan districts. In oil shares the better reports of the state of the trade are showing signs of telling on the share market, although as yet no very marked improvement has taken place. Dalmeny and Young's Paraffin, both dividend-paying concerns, standing at heavy discounts, may be pointed out as likely to advance considerably with better trade. In Americans all have been dealt in, Emma showing a slight improvement; Flagstaff and Last Chance, on the other hand, being dull and neglected at lower prices. It appears to me that the present is a favourable time to purchase shares in these last two mines, and wait for the usual periodical upward commotion to sell at a profit. No alteration has been made in the Bank rate to-day, although an advance was expected in some quarters. A detailed list of the several days' business follows:—

On Thursday last a fair amount of business was done, and prices mostly improved. Benhar, buyers at 143s., with sellers nominally at 145s.; Canadian Copper Pyrites done at 61s., closing 60s. to 62s.; Chillington Iron, 61s. to 63s.; Ebbw Vale done at 23s. and 24, closing at these prices; Emma done at 27s. 6d. and 28s., closing better, at 28s. 6d.; Glasgow Caradon done at 29s. 6d., closing 29s. to 29s. 6d.; Port Washington done at 60s. 6d. and 62s., closing 61s. to 63s.; Huntington done at 70s., 71s., 70s., and 69s., closing 68s. 6d. to 69s. 6d.; Marbella done at 5s. 11 1/2d. and 5s. 11 1/2d. to 5s. 11 1/2d.; Merry and Cuninghame were in good request, opened at 70s. 6d. and advanced to 72s., closing 71s. 6d. to 72s. 6d.; Monkland ordinary done at 97s. and 98s., closing 95s. to 97s.; guaranteed preference done at 8s. 1/2d.; Shotts Iron rose 30 per share, being done at 70 and 71, closing 71 to 71 1/2d.; Tharsis done at 26s. and 26 1/2d., closing 26 1/2d.; new shares done at 18s. 7 1/2d. and 18s. 7 1/2d., closing 18s. 7 1/2d.; Young's Paraffin steady, at 5s. 1/2d.; Scottish Wagon new shares, 22s. to 23s.

On Friday, notwithstanding it being contango day, a large amount of business was done, at generally higher prices. Benhar, 143s. to 145s.; Cairnabla, 55s. to 57s. 1/2d.; Canadian Copper Pyrites done at 60s. 6d. to 60s. 6d.; Ebbw Vale quiet, at 23s. to 24; Emma done at 27s. 6d. and 28s., closing 27s. 6d. to 28s. 6d.; Glasgow Caradon firm, at 29s. to 29s. 6d.; Huntington flat, done at 69s. 6d., 68s. 6d., and 66s., closing 65s. 6d. to 66s. 6d.; Merry and Cuninghame again good, opened at 70s. 6d., and advanced to 72s., closing 71s. 6d. to 72s. 6d.; Monkland ordinary done at 97s. and 98s., closing 95s. to 97s.; guaranteed preference done at 8s. 1/2d.; Shotts Iron rose 30 per share, being done at 70 and 71, closing 71 to 71 1/2d.; Tharsis done at 26s. and 26 1/2d., closing 26 1/2d.; new shares done at 18s. 7 1/2d. and 18s. 7 1/2d., closing 18s. 7 1/2d.; Young's Paraffin steady, at 5s. 1/2d.; Scottish Wagon new shares, 22s. to 23s.

On Saturday the usual quietness prevailed. Cape Copper shares rather lower at 29, sellers. Ebbw Vale also easier at 23s. 1/2d. to 23s. 3/4d. The last sale of copper ore by the Glasgow Caradon Company is now announced, and is very favourable, being 255 tons, realising 1292s., or an average of 104s. 4d. per ton; while the sale at the same time last year was 255 tons, realising 1044s., or an average of 81s. 11d. per ton only. The price of the shares was then 46s.; now they can be had for 29s. or 29s. 6d., and they appear very good to buy, as it is difficult to account for a fall of over 30 per cent. in the shares when the amount of ore being got out of the mine is the same, and the average price per ton realised for it nearly 30 per cent. higher. The price of the shares was then 46s.; now they can be had for 29s. or 29s. 6d., and they appear very good to buy, as it is difficult to account for a fall of over 30 per cent. in the shares when the amount of ore being got out of the mine is the same, and the average price per ton realised for it nearly 30 per cent. higher. The price of the shares was then 46s.; now they can be had for 29s. or 29s. 6d., and they appear very good to buy, as it is difficult to account for a fall of over 30 per cent. in the shares when the amount of ore being got out of the mine is the same, and the average price per ton realised for it nearly 30 per cent. higher.

On Monday a large business was done, and the market was strong. The account for settlement, Oct. 15, opened to-day; the contango day will be Monday, Oct. 13. Benhar in demand, but no seller. Cairnabla done at 111s., closing 110s. to 111s. Canadian Copper Pyrites lower, at 57s. 6d. to 58s. 6d. Ebbw Vale unchanged at 23s. to 23 1/2d. Emma done at 28s., closing 27s. 6d. to 28s. 6d. Glasgow Caradon quiet, done at 29s., closing 29s. to 29s. 6d. Port Washington firm at 63s. to 65s.; the all-paid shares were also done at 6, being last quotation. Huntington firm, at 67s. to 68s. Marbella, 5s. to 5s. 11 1/2d. Merry and Cuninghame firm, done at 72s. and 72s. 6d., closing 72s. 6d. to 73s. 6d.; the all-paid shares also changed hands at 10, being 1/2d. higher. Monkland ordinary were very strong, and advanced to 100s.; a large business was done in them, and they finally closed steadily at 99s. 6d. to 100s. 6d. The guaranteed preference shares were done at 8s. 1/2d. and 8s. 1/2d., closing 8s. 1/2d. to 8s. 11 1/2d. Niddrie done at 41s., closing good at 41s. to 42s. Shotts Iron, 72 to 75. Tharsis shares were very good, and advanced from the opening price—27 1/2d. to 29, closing 28 1/2d. to 29; new shares also advanced, done at 19 1/2d. to 19 1/2d., closing 19 1/2d. to 19 1/2d. York Peninsula were again in good demand at 9s. to 11s.; guaranteed preference were also wanted at par, but no sellers. London and Glasgow Engineering shares are now quoted ex div., the price being 25 1/2d. Scottish Wagon old shares done at 12s. 1/2d., closing 12 1/2d. to 12 1/2d., and the new shares were done at 22s. 6d.

On Tuesday, again, a large business was done, and with steady prices. Benhar strong, buyers at 143s., sellers asking 145s.; Boleck Vaughan, "A" done at 55s.; Cairnabla done at 111s.; Canadian Copper Pyrites done at 57s., 57s. 6d., and 57s., closing 56s. to 57s.; Cape Copper wanted at 28, but no sellers. Emma, 27s. 6d. to 28s. 6d.; this company has issued a notice to the following effect with reference to the alleged seizure of the mine by Mr. Park:—There is no truth in the report that Mr. Park has seized the mine. All that has taken place is that he has commenced legal proceedings to force an alleged claim, and has, as part of such proceedings, issued an attachment against the mine, the validity of which will be decided in the proper legal courts. Flagstaff offered at 2 1/2d., being a fall of 1/2d. per share; Glasgow Caradon done at 29s., 29s. 6d., and 30s., closing 29s. 6d. to 30s. 6d.; Port Washington done at 64s., closing 64s. to 65s.; Huntington done at 70s. and 69s., closing at these prices; Last Chance changed hands at 1s. 1/2d.; Lochore and Caplethrae wanted at 6s. 1/2d., sellers asking 7s.; Marbella done at 5s. 11 1/2d. to 5s. 11 1/2d.; Merry and Cuninghame done at 72s. 6d., closing 72s. 6d. to 73s.; Monkland ordinary, opened at 100s., and after declining to 97s. 6d. rallied, and closed 99s. to 100s.; guaranteed preference done at 8s. 1/2d., closing good at 8s. 1/2d.; Niddrie done at 42s., and more wanted at that price; Rio Tinto are now 9s. 1/2d. paid, and are quoted 8 1/2d. to 8 1/2d.; Young's Paraffin steady at 1 1/2d.; the directors of this company have received advices from Sydney, dated Aug. 7, 1874, with reports from the Lambton Colliery to the 5th of that month. The sales of coal for the month of July amounted to 10,821 tons. A completed return for June has been received, showing that the sales for that month amounted to 16,568 tons, instead of 14,769 tons as previously reported. Shotts rose another 4d. per share, being wanted at 7d., sellers nominally at 8d.; new shares, 6s. to 6s. 1/2d.; Tharsis opened at 29, but under the pressure of sales declined to 27 1/2d., from which, however, a rally took place, and they closed 27 1/2d. to 27 1/2d.; new shares done at 19 1/2d. and 19, closing 19 1/2d. to 19 1/2d.; York Peninsula firm at 12s. 1/2d.; London and Glasgow Engineering wanted at 25 1/2d., with sellers at 25 1/2d.; Scottish Wagon, 12s. 1/2d. to 12s. 1/2d.; York Peninsula ordinary done at 9s., closing at 9s. to 11s. Guaranteed preference also changed hands at par; the directors of this company have received advices from the committee at Adelaide, with a report from the Kurilla Mine, dated Aug. 10, 1874. This is, of course, not so late information as the telegram received by the directors on Aug. 24 in London, but explains what work was being done just before the discovery then reported was made. Detailed information of it, however, may be expected a few days hence. If it is as favourable as expected, a further advance will likely take place in the shares, but at present prices I would recommend an investment in the preference rather than the ordinary shares.

On Wednesday, the business done was not so large, but the market was firmer. Benhar still scarce, buyers offering 14s. sellers nominally at 145s.; Canadian Copper Pyrites done at 60s. and 61s., closing 60s. 6d. to 61s. 6d.; Chillington

Iron 1/4 lower, at 6s. Conglog Slate and Slab 1/4 higher, at 10s. Glasgow Caradon done at 29s. 6d., closing 29s. to 30s. Port Washington done at 64s., 64s. 6d., 64s., and 63s. 6d., closing 63s. to 64s. Huntington done at 69s., closing 68s. 6d. to 69s. Islay Lead offered at 1s. 1/2d., being 1/4 lower. Lochore and Caplethrae firm at 6s. 1/2d. to 7s. Marbella done at 5s. 11 1/2d., closing 5s. 11 1/2d. Merry and Cuninghame done at 73s. and 73s. 6d., closing at these prices. The numbers of the A debentures of this company, drawn for payment between this day and October 31, amounting to 11,400, have been published to-day. The interest in them ceases to run from October 1. Monkland ordinary done at 95s., 100s., 99s. 6d., and 100s., closing 99s. 6d. to 100s. Guaranteed preference done at 9s. 7 1/2d., and 9s. Niddrie in demand at 43s., but no seller. Shotts Iron rose 1d. per share, being 77d. to 80d. Tharsis have recovered a good deal of the depression of yesterday, opening at 27 1/2d. to 27 1/2d., and closing 28 1/2d. to 28 1/2d.; new shares, 19s. to 19 1/2d. Young's Paraffin, 5s. 1/2d. to 5s. 1/2d. London and Glasgow Engineering wanted at 25s. sellers remain at 25 1/2d. Scottish Wagon, 12s. 1/2d. to 12 1/2d. Among the shares not usually quoted dealt in here have been Javali Gold Mine, 2s. fully paid, at 1/4 to 1/2d. Subjoined will be found the latest prices:—

Amount of share.	Amount paid up.	Name.	Latest price.
10	4	Arniston Coal (Limited)	4
10	10	Benhar Coal (Limited)	15 1/2
100	35	Boleck Vaughan, and Co. (Limited)	A.
10	5	Cairnabla Gas Coal (Limited)	11 1/2
10	10	Chillington Iron (Limited)	6
32	29	Ebbw Vale Steel, Iron, and Coal (Limited)	23 1/2
10	3	Fife Coal (Limited)	5
10	6	Glasgow Port Washington Iron and Coal (Limited)	63s. 6d.
10	10	Doitto All paid	6
10	10	Lochore and Caplethrae (Limited)	6 1/2
10	10	Marbella Iron Ore (Limited)	6 11 1/2
10	3 1/2	Merry and Cuninghame (Limited)	73s. 6d.
10	10	Doitto All paid	10
10	10	Monkland Iron and Coal (Limited)	5
10	10	Doitto 7 per cent. Guaranteed Preference	9
100	100	Nant-y-Glo and Blaenau Ironworks pref. (Limited)	50
10	2	Niddrie Coal (Limited)	43s.
10	4	Onyx and Cleland Iron and Coal (Limited)	69s. 6d.
60	50	Shotts Iron	78 1/2
10	4	Doitto New, issued at 2 1/2 premium	6 1/2

COPPER, LEAD, SULPHUR, TIN.

10	7	Canadian Copper Pyrites (Limited)	57s.
10	10	Doitto All paid	6 1/2
10	7	Cape Copper (Limited)	28 1/2
5	5	Drake Walls Tin and Copper	5
2	2	Dunsley Wheel Phoenix Tin (Limited)	15s.
1	25	East Black Craig Lead (Limited)	25
1	1	Glasgow Caradon Copper Mining (Limited)	29s. 6d.
1	15s.	Doitto New	69s. 6d.
10	9	Huntington Copper and Sulphur (Limited)	14
1	1	Islay Lead (Limited)	1 1/2
25s.	23s.	Kapunda Copper (Limited)	3 1/2
4	4	Panulillo Copper Mining (Limited)	1
10	9	Rio Tinto (Limited)	8 1/2
10	10	Russian Copper Mining (Limited)	2 1/2
1	1	Scottish Australian Mining (Limited)	1 1/2
1	5s.	Doitto New	36
10	10	Tharsis Copper and Sulphur (Limited)	25 1/2
10	7	Doitto New	19 1/2
1	1	York Peninsula Mining (Limited)	3 1/2
1	6s.	Doitto 15 per cent. Guaranteed Preference	4

GOLD, SILVER.

1	1	Australasian Gold Mines Investment (Limited)	1
20	20	Emma Silver Mining (Limited)	28s.
10	10	Flagstaff Silver Mining (Limited)	2 1/2
6	6	Last Chance Silver Mining (Limited)	1

OIL.

10	7	Dalmeny Oil (Limited)	5 1/2
5	5	Midlothian Mineral Oil (Limited)	8
10	8	Upfall Mineral Oil (Limited)	4
10	8 1/2	Young's Paraffin Light and Mineral Oil (Limited)	5 1/2

MISCELLANEOUS.

10	10	Conglog Slate and Slab (Limited)	10 1/2
10	10	Dumfries Peat Fuel (Limited)	10
10	10	Highland Peat Fuel (Limited)	10
50	25	London & Glasgow Engineering & Iron Shipbuilding	25 1/2
2	7 1/2	Peruvian Nitrate (Limited)	36
10	10	Scottish Wagon Company (Limited)	12 1/2
1	1	Doitto New	22s. 6d.
20	20	United States Rolling Stock	14

Last day for this account Oct. 12; settling day, Oct. 15.

NOTE.—The above list of mines and auxiliary associations is as full as can be ascertained, Scotch companies only being inserted, or those in which Scotch investors are interested. In the event of any being omitted, and parties desiring a quotation for them and such information as can be ascertained from time to time to be inserted in this list, they will be good enough to communicate the name of the company with any other particulars as full as possible.

J. GRANT MACLEAN, Stock and Share Broker.

Post Office Buildings, Stirling, Oct. 1.

REPORT FROM CORNWALL.

Oct. 1.—The event of the week has been the holding of Dolcoath account. The resources of this famous mine appear to be inexhaustible. The deeper it is sunk the richer it gets, or something very like it, and with only a moderately good price for tin the dividend would have been a very handsome one indeed. As it is, 10s. a share is not to be despised. The cheery speeches of the Chairman and others present show that they at least have no fear as to the future of Cornish mining; and, in spite of one's natural inclination to believe in shallow, because more cheaply worked, mines rather than deep, the Chairman's confident belief in deep established mines certainly does receive considerable force from the abandonments that have taken place elsewhere, notably in the St. Columb and Roche districts.

It is stated that some of the owners and occupiers of land in West Cornwall have received notices on behalf of the lords of the manor of St. Day, intimating that they do not intend in future to hand over any portion of the tin bounding money to them. Some of these boundaries say their rights date from the time of King John, but whether that be so or not, and without expressing any opinion on individual cases, it is clear that the rights of tin bounders are, to say the least, quite as good as those of the lord of a manor to any wastrel or common land. In no other European country save England does the right to minerals rest in the owner of the soil. There is good ground for believing that even here all metalliferous minerals were at one time among the regalia of the Crown, that is even what in these days we should call public property, and from the earliest times the rights of owners of lands in which tin mines were worked have been qualified. In Devon the tin miners claimed, and long exercised, a right to work how and when they pleased. In Cornwall they did not go so far as this, but they always exercised the right to work under certain restrictions in wastrel. These rights have naturally, and very properly, been limited as time went on, and may now be said to be non-existent. But tin bounds which arose out of their exercise in this county are as much and as distinct a matter of property as an estate. They arose in this way. When a man found a lode he set off a certain area of bounds, and thereafter, certain formalities being gone through, had a right to work the lode if he pleased, rendering certain payments or dues to the lord of the soil; or if he chose he could let the right of working himself, receiving dues as rent for the cession of that right. Hence the fact that bounding rights and owning rights have come down side by side until the present day. Under certain conditions bounding rights could be forfeited, and it has long been impossible to create new bounds, but where the bounds were created while such creation was legal, and where no forfeiture has since taken place, they are as distinct a matter of inheritance and property as anything connected with real estate can be. They represent not merely the reward of the first discoverer for his discovery, but a definite and a clear interest in the property acquired by him—a kind of perpetual patent right as it were. The absolute ownerships now claimed by lords of manors, with all the manorial rights at their back, and by owners of soil in that which lies beneath the surface, is a very modern affair compared with the antiquity of mining operations. Even so late as the time of Elizabeth patents were granted to foreign miners, and that within the jealously-guarded Stannaries, to search and work mines as they pleased, tin only excepted, rendering nothing to the owner of the land except compensation for surface damage.

Many a mine that is now dead would be alive still if this were yet to rule. Cornwall has got a few good mineral lords, but the action of some has ever been in the wrong direction, either attaching such conditions as prevent a mine being worked at all, or treating a mine as if it were a sponge to be squeezed dry by extortion. The dues system would have been on a better footing than it is if their absolute owning rights had not been created or suffered to arise. The bounding system is one of some importance beyond its con-

nection with the individuals immediately concerned, and should not be suffered to die without a struggle. It is almost the sole relic of the state of things of which we have spoken, in which the miner was more of a partner with the lord than a mere tenant, and in which he had his well-recognised and defined rights of ownership in the undertaking which his knowledge and skill had established.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Oct. 1.—The Iron Trade of South Staffordshire, although in some respects improved, is still more or less in an unsettled state, owing to the uncertainty which prevails as to the course of prices. Representatives of the leading houses on 'Change in Birmingham to-day declared that it was very doubtful whether any reduction in quotations would be made on Quarter-day, and it is undoubtedly true that Earl Dudley, Messrs. Barrow, and other firms, whose quotations usually rule the market, have their order-books tolerably well filled. Supposing the standard of 12s. per ton for marked bars to be maintained, a stimulus will be given to the selling price of inferior brands, which have been discounted during the last fortnight in anticipation of the expected reduction in the rate for branded iron. Common bars are now changing hands at 9s. 15s. to 10s. 5s. per ton, and the rate for rods, hoops, and strips is in the usual proportion. Sheets and plates continue to maintain a steady enquiry, and prices are well supported. In the galvanised iron roofing trade a decidedly improved business is experienced. The pig-iron branch is steadily, though not very rapidly, improving. Common cinder pig is quoted 3s. 2s. 6d. to 3s. 7s. 6d. per ton; all-mine ditto, 5s. to 5s. 15s.; and intermediate qualities in the usual proportion. Arrangements are being made for the re-lighting of several additional blast-furnaces in various parts of the district, and the total number blowing bids fair soon to present a fair average.

The South Staffordshire coal trade is a degree steadier as to demand, but there is still a good deal of irregularity in quotations. The reduced price lists of Earl Dudley and other leading firms have been sent out to-day in accordance with the agreement made a fortnight ago. The reduction on best coal is 3s. per ton. The quotation list will now be as follows:—Earl Dudley—Best thick coal, 18s. 6d.; seconds, 17s.; furnace, 13s.; steam, 12s.; engine slack, 7s.; fine slack, 3s. 6d.; heathen coal, 16s.; ditto lumps, 12s.; New Mine coal and lumps, 12s.; Ramrod Hall thick coal, 16s. 6s.; furnace ditto, 12s. 9d.; lumps, 12s.; forge lumps, 11s.; and slack, 8s.—West of Dudley: Best thick coal, 18s.; seconds, 13s.; lumps, 12s.; steam, 11s. 6d.; screenings (bright), 10s.; steam screenings, 8s. 6d.; engine slack, 6s.; heathen coal, 18s.; ditto lumps, 12s.; ditto screenings, 10s.; brooch coal mixed, 15s.; screenings, 13s.; and slack, 6s. These prices are all per ton of 2240 lbs. weighed over machine into boats or carts at the collieries specified. Common forge coal in the thin coal part of the district is 10s. to 12s. per ton, and there is a good deal of competition for orders.

An extraordinary general meeting of the Sandwell Park Colliery Company was held at the colliery, on Tuesday afternoon, for the purpose of confirming and making special the resolutions, which were duly passed by the necessary statutory majority at an extraordinary general meeting of the company, held on Sept. 3. The Chairman said it might be interesting to the shareholders to know that the new shaft had been sunk to a depth of 48 yards, and that the sinking was proceeding at the rate of 7 or 8 yards per week. The headway between the two shafts had been carried 46 yards in the direction of Sandwell Park, and the coal was everything that could be desired. The shareholders afterwards inspected the works at the colliery, and found everything highly satisfactory.

Sandwell Park Colliery shares are quoted 50 to 55; Pelsall Coal and Iron, 2½ to 2 dis.; Chillington Iron, 6½, sellers; Cannock and Huntington Colliery Company (Limited) ½ dis., sellers; J. Bagnall and Sons, 7½, buyers; Patent Shaft and Axle, 5½ prem.; and Staffordshire Wheel and Axle, 2 prem. The issue of 7 per cent. debenture bonds by the Darlaston Steel and Iron Company (Limited) has been subscribed for to the extent of 30,000l. in excess of the amount to be allotted. There are buyers of the bonds at 2½ to 5 prem.

The North Staffordshire Institute of Mechanical and Mining Engineers made an excursion to Hyde Junction, on Monday, to visit various works in the district. About 180 members joined the excursion. On their arrival at the station they were received by Mr. Adamson, of the firm of Adamson and Sons, engineers, Hyde, who conducted them through the works and explained the various processes to them. After this they visited the Astley deep pit, and some cotton and spinning mills in the neighbourhood, and were then entertained at dinner by Mr. Adamson, at the Victoria Mills, Hyde Junction, where Mr. Adamson delivered an address, and Mr. Homer, the president of the Institute, replied in suitable terms.

The scrutiny of the accountant as to the selling prices of iron in South Staffordshire during the last three months, by which the rate of wages for next quarter is to be determined, has not yet been completed, but it is computed that the result will be a reduction of 1s. per ton in the rate for puddling, and a proportionate reduction in the wages of other ironworkers.

In North Staffordshire the current demand for iron is easier, but the pressure for delivery of orders booked is very great. The mills are, as a rule, in full production. For pig-iron the demand fairly well maintains the improvement recently noted. Good forge pigs are quoted 80s. per ton, delivered in Wolverhampton, and stocks are at this figure being steadily reduced. Coal and ironstone are both in abundant supply, and prices are weaker.

We regret to announce the death of Mr. Sampson Lloyd, J.P. for Wednesbury, which event took place at his residence at Arley House, near Stourport, on Saturday last. The deceased gentleman came to Wednesbury in 1835, on the retirement of his brother, Mr. G. B. Lloyd, to take his place as partner, and superintendent of the engineering department of the well-known works of Lloyds, Foster, and Co., which had been founded by his brother, Samuel Lloyd, in 1820. During the time he was connected with these works they were considerably enlarged, and in 1867 they were transferred to the Patent Shaft and Axletree Company, of which he was deputy-chairman at the time of his decease. He was also connected with a large number of other concerns, and occupied the position of chairman of the South Staffordshire Waterworks Company and chairman of the Darlaston Steel and Iron Company.

From the official return just issued (which was published in last week's Journal) it transpires that the mines in South Staffordshire and East Worcestershire under the care of Mr. James P. Baker, the Government Inspector, and his assistant, Mr. W. B. Scott, number 450, and that connected with the mines there are about 2000 pits. This is by far the largest number of pits in any of the thirteen inspection districts in the United Kingdom. The next largest in number is the Yorkshire district, of which Mr. F. N. Wardell is the Inspector. In that case the pits number 1200, and the mines 491. During the official year Mr. Baker and Mr. Scott together have made 110 underground inspections, and Mr. Baker has made 336 visits. Mr. Scott's visits number 115, of which 190 were to collieries. The mines under the care of Mr. Thomas Wynne, Government Inspector for North Staffordshire and Shropshire, who, up to Sept. 30, had Mr. Gray as his assistant Inspector, but who is now assisted by Mr. B. Samuel Gilroy, number 240, and the pits about 1000. Mr. Wynne and Mr. Gray have together made 129 underground inspections; Mr. Wynne's visits number 125, and those of Mr. Gray 34. In South Staffordshire and East Worcestershire the expenses of carrying out the Mines Inspection Act in the twelvemonth are set down at 1023l. 7s. as salaries, 240l. 12s. 10d. as travelling expenses, and 159l. 12s. 6d. as personal allowances. The expenses in the same order for North Staffordshire and Shropshire are 936l. 18s. 9d., 271l. 1s., and 191l. 3s.

The inquest on the three men killed by the accident on Sept. 16, at the Charity Colliery, Nuneaton, was resumed at Bedworth on Wednesday, and resulted in a verdict—

"That it is our unanimous opinion that great laxity has existed in the working of the mine, and we are further of opinion that a man should be in charge of the bow of the incline, and not be allowed to attend to any other duties than those which attach to the trucks or tubs employed during the time the men are ascending or descending the incline. We further think that efficient brakes should be supplied. Further, that Wilkins, the underviewer, and Gilbert, the contractor, are highly blameable, the former for placing so incompetent a person as Denis in such a position, and the latter for withdrawing Ivons from his proper duty as browman."

The absence of discipline appears to have been marvellous. The browman appears to have also had to attend to the duty of giving out candles to the men, and was absent from his post, his duty being performed by a lad when the accident occurred. Thomas Gilbert, the engine-driver, was not in the habit of waiting for any formal signal to lower the men, who shouted to him instead; Jones, one of the contractors for drawing the coal, did not make it a practice to observe the rules, because, "to tell the truth, he had no more power over the men than a piece of paper. Wilkins took all power out of his hands;" and William Gilbert, one of the contractors, gave Ivons, the browman, the order to give out the candles.

THE IRON AND COAL TRADES OF NORTH STAFFORDSHIRE.—The quarterly meeting of the North Staffordshire Iron and Coal Masters' Association was held on Thursday, at Hanley, Mr. Wragge in the chair. Trade was reported generally quiet, with nothing of importance doing in any department. It was mentioned that all contracts and rates of wages of ironworkers would terminate on Saturday, under the agreement in force, and a new scale of wages would come into operation. It was decided by the blast-furnace proprietors to give notice on Saturday of a reduction in wages of 10 per cent. to persons employed at the blast-furnaces of North Staffordshire, to take effect at the end of 14 days.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Oct. 1.—The Iron Trade in both South and North Derbyshire is in a tolerably healthy state, so that there has been scarcely any falling off in the production of raw iron for some time past. On the Erewash Valley line there is a considerable number of furnaces in blast, and the Butterley Company are importing a large tonnage of stone from Northamptonshire, some of it a carbonate giving more than 40 per cent. of metallic iron. The plate and other mills are working very well, whilst the foundries are doing a very good business in gas and water pipes, pillars, cylinders, and general castings. The demand for steam coal has been very good of late, both for shipment and for home consumption, so that no stacks are to be seen at the pits. House coal is also in fair request, and a large tonnage has been sent during the week to London from Clay Cross, Langley Mill, Eckington, and Codnor Park. There is some agitation at Butterley with respect to several of the men that took an active part recently in making demands upon the company, and who in consequence were not allowed to resume work; the men, however, have been keeping them, and have made several efforts to have them reinstated, but so far ineffectually. A little more time, however, in all probability, will have the effect desired by the men, and the lesson taught will, doubtless, not be easily forgotten.

The Sheffield Trades have undergone but little change during the week, but some considerable alterations have taken place at some of the largest places. At the Atlas Works one of the Bessemer rail mills has been put down, and the men discharged. This is attributed to the keen competition, and the low price at which Bessemer rails are now being produced. The Nunnery Colliery, and the New Winnings, the property of the Duke of Norfolk, have been taken by a company formed in the town, so that his grace's interest in them otherwise than as the lessor of the coal will now cease. The collieries were a few years since worked by Mr. Huntsman, and it is evident that even coal mining is not such a profitable matter as it has been. In South Yorkshire the collieries have been doing very well, and a heavy tonnage of steam coal has been forwarded to the Humber ports for shipment to the North of Europe, the trade to which is now drawing towards a close for the present year. Engine fuel is not in such good demand as it has been, and prices are easier. New collieries are being opened out in all directions, so that in a year or two the productive power of South Yorkshire will be immensely increased.

The excessive competition that has of late prevailed in the steel rail trade, and the impossibility there has been to obtain orders at remunerative prices, have induced the directors of John Brown and Company (Limited), Atlas Works, Sheffield, to close one of their mills and discharge the workmen. They are adapting the machinery to the manufacture of plates. About 600 men are affected by the change, and many of them are now idle.

TRADE OF THE TYNE AND WEAR.

Sept. 30.—The Coal Trade has been extremely quiet during the past week, the foreign trade having fallen off considerably. The demand for all kinds of coal is limited; there is no life in any branch of the trade, and, of course, small and manufacturing coals are quite a drag. In the Blyth district the collieries have been kept pretty well employed so far, and the shipments from that port have been on a liberal scale of late. The sitting of the Court of Arbitrators to settle the difficulty in the Durham coal trade was to commence on Thursday, Oct. 1, but so much difficulty has been met with in collecting the necessary information on both sides, that it has been determined to postpone the day of meeting until Oct. 7, when the gentlemen composing the court will meet at the Station Hotel, in Newcastle. Mr. Russell Gurney, the Recorder of London, has been nominated by the arbitrators to fill the post of umpire.

NEW WINNING FOR COAL.—The first sod in connection with the sinking of a large shaft to win the coal in the Henshaw royalties, near Haltwistle, was cut a few days ago by Mr. Clark, of Featherstone, in the presence of a number of gentlemen. Mr. Clark, in an appropriate speech, alluded to the large extent of the coal field, and its easy access to the various markets by railway. He had no doubt that the venture would prove successful and profitable. The shaft to be sunk is 12 feet in diameter, and the seam, which is a valuable coking one, is expected to be reached at a moderate depth. These coal beds are situated at the extreme western edge of this coal field, and near the lead measures, which are found only a short distance in a south-westerly direction from these coal mines.

An extraordinary occurrence has taken place at the Addison Pit, Stella. The workings in the Brockwell seam have, it appears, been some time advancing towards some old workings supposed to be filled with water, and, of course, borings were made in advance of the drift to prove and run this water off; however, on Monday week the men holed into the old workings by means of the bore-roads, but instead of meeting with water a large quantity of inflammable gas burst out with great violence, and although the men were working with Davy safety-lamps they proved in this case to be no safeguard, for the current of gas filling the lamps internally with flame also forced the flame through the gauze, and the face of the drift being filled with flame the brattices and coal were thus set on fire. Fortunately the men escaped without injury, and afterwards a dam was built up, so as to separate the fire from the other extensive workings, and it is hoped that the fire will be thus extinguished. This case ought not to be lost sight of by mine owners and managers. It is evident that the Davy lamp is not suitable for use when sudden and violent eruptions of inflammable gas may be expected. In such cases the Stephenson lamp is no doubt the safest, as when it becomes filled with gas the light is extinguished, and there is no further danger.

The iron trade continues quiet on the whole, but the market at Middlesbrough on Tuesday was a little firmer. No 3 pig-iron was quoted 66s. to 66s. 6d., which was a slight advance on former rates. Prices have advanced in the Scotch markets, and as the shipping trade is drawing to a close this causes an increased demand, which is, however, only of a transient character. No 4 forge was firm at 58s. to 58s. 6d. No 1 was also firm at 70s. net cash. The manufactured iron trade is improving slowly. Rail manufacturers are in most cases receiving sufficient orders, but a few firms refuse to work their rail mills, as the prices are not considered remunerative. The prices of rails are firm at 7l. 15s. to 8l. for heavy rails, and 8l. 10s. for light rails. Ship-plates are 9l. 7s. 6d. Common bars 9l. to 9l. 5s. The shipbuilding trade is brisk. Mr. Pearson, of Stockton, launched a fine vessel for the Mediterranean last week. The Cleveland iron ore mineowners have held a meeting and decided for the present not to take any further steps towards reducing the wages of the miners and others. Coal and coke are still falling in value.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS.—A general meeting of members will be held in the

Wood Memorial Hall, on Saturday. The business to come before the meeting is as follows—A number of new members are to be elected, and also students. The number of members in the society now exceed 800, and they are increasing rapidly. After the disposal of the routine business the following papers will be read:—"On the little Limestone and its accompanying Coal in the Southern part of Northumberland," by Mr. G. A. Lebour, F.G.S., &c. This paper will possess much interest, as great exertions have been made late to get coal in the western portion of the country, where coal is scarce and dear. On the "Water Supply of Newcastle," by Mr. S. Newall. This subject unfortunately possesses too much interest to Newcastle, and the whole of the Tyne district is in a bad plight owing to a very deficient supply of water of inferior quality. Mr. Newall has a scheme for supplying the district with water of excellent quality, and in amply sufficient quantity. He proposes to bring the water from Ullswater Lake in Cumberland by means of a canal. It is quite possible that the scheme may be feasible so far as the engineering question is concerned, but it has one very serious defect. The scheme would cause an enormous outlay, probably upwards of 1,000,000l., would be required to execute it, and a long period would also elapse before any benefit could be derived from it. The distance to Ullswater is upwards of 60 miles from Newcastle, and an abundant supply of excellent water can be obtained much nearer home on the south side of the River Coquet; on the Simonside Hills an abundant supply can be had, the distance from Newcastle being about 30 miles, or about 25 miles from the company's great reservoir at Hallington. The works necessary to secure the water would, it is probable, only cost about one-third the amount required for Mr. Newall's scheme.

A valuable silver tea and coffee service and an address has been presented to Mr. John Simpson, manager at the High Heworth Colliery, by the officials, workmen, and a few friends, on the occasion of his marriage, as a token of their esteem. Mr. Jos. Bailey read the address, and Mr. Jos. Heekels presented the service, and a gold dress ring to Mrs. Simpson.

THE CO-OPERATIVE MINING SOCIETY (LIMITED).

The first ordinary general meeting of this society was held on Saturday at Newcastle-on-Tyne, when there was a very large attendance of shareholders. The chair was taken by Dr. RUTHERFORD, chairman of the society. The report of the committee stated that having regard to the shortness of the period during which they had had possession of Monkwood Collieries, the unsettled condition of the coal trade, and the difficulties incidental to a new enterprise, they could not reasonably expect greater results. As yet, the workmen in the collieries have not to any extent become members, and they think it of great moment that every effort should be made to interest the members of the society in the success of the society to increase its capital, so that they may be able to secure a colliery in Northumberland or Durham. The share capital up to date amounts to 34,440l., and on loans on debentures to 2570l.

The Chairman stated that the society had now been in existence for about two years, and that the miners of Northumberland and Durham had given it their very hearty support. This remark applied as well to their fellow-workmen of Cumberland and other districts. On June 30 they had 4125 (5l.) shares taken up, towards which was paid the sum of 18,467l. 6s. Since then, however, the share capital had been increased to no less a sum than 34,440l.; and that every day a considerable sum had been received towards new shares as well as debenture bonds, the debenture bonds amounting to between 2000l. and 3000l. He congratulated the shareholders on the fact that, though they had had considerable difficulty in getting a colliery, in consequence of the feeling generally manifested towards co-operative societies, they were now being recognised as no unimportant concern, and that offers were coming in on all hands. The society had negotiated, and almost completed, the purchase of a colliery in Derbyshire, and had been in possession since March of the present year. He had every confidence that they would be able, by strict and careful management, to make this colliery a good success, but he thought they could not stop there. His advice was that every member should do his utmost to increase the society's capital; and he recommended that each man, on his return to his own locality, should place the society's claims before his fellow-workmen, so that by Christmas they might be able to add another 30,000l. to their funds, and thus be in a position to purchase a colliery near home. He further stated that at present they had an offer of a good going colliery near Newcastle, and that he thought it likely they could make a purchase on easy terms. The Chairman, whose speech was of considerable length and frequently applauded, concluded by moving the adoption of the report, which was seconded by Mr. Byth, and carried, after a few questions had been answered. The whole of the directors having resigned, in order to give others a chance of being elected, the following gentlemen were declared duly elected, after a show of hands had been taken for each candidate:—Messrs. Rutherford, Bart, Nixon, Young, Crawford, Bryson, Brown, Cramon (old members); Messrs. Elliott, Foreman, Patterson, Pryor (new members). The proceedings terminated with the re-election of Messrs. Benson, Eland, and Company as auditors, and the usual vote of thanks to the officials and Chairman.

REPORT FROM MONMOUTH AND SOUTH WALES.

Oct. 1.—The quantity of iron cleared from the local ports during the past week has been particularly small, and it indicates clearly the dulness which overhangs the trade. Ebbw Vale has cleared 1266 tons to Wollendo, and 1018 tons to Tuckahano, and Guest and Co. 480 tons rail. There has been but little change in the position of the trade during the past week, and this is not so much to be wondered at when it is remembered how near the end of the quarter is. Bayers are only doing a hand to mouth business just now, as they are waiting to see what quotations will be fixed for the next quarter. They do not run much risk in this, because there is little fear of prices being advanced; the state of the trade will not allow of it, but the probability is in their favour that quotations will be reduced. It cannot be expected, however, that quotations can be lowered to any great extent. A rumour was circulated last week that a third reduction in the wages of the ironworkers was to be enforced, although it was previously understood that no further alteration was to be made in the rate of wages this year. It was originally intended by the ironmasters to carry out three drops of 10 per cent., so as to make the wages rate proportionate to the prices obtained for iron; but when the prospects of the trade began to improve the masters seemed anxious to keep the wages up as much as they could. But the cause for the reports that the third reduction was to be carried out was the reluctance with which customers were placing orders at the quotations asked. The same features are still to be noticed in the Tin-Plate Trade; business is very slow, and the manufacture has still to be restricted. The Coal Trade continues to improve gradually, and there is reason to believe that an active business will be done throughout the winter. Prices have not altered to any extent during the last week or two.

At a meeting of the Monmouthshire and South Wales Colliery Association held this week, it was agreed to issue the following notice to all the collieries excepting Caerphilly:—

"Notice as follows is hereby given to all persons employed at this colliery. The engagement from day to day of all persons employed at this colliery shall cease as of and from the 30th day of September, instant, and that all persons employed at this colliery shall be engaged at this colliery under the following conditions:—That the contract between the owner of this colliery and all persons employed at this colliery shall continue until it be continued by notice given by either party on the first day of any calendar month to expire on last day of the same month on the following conditions:—That the owner of this colliery shall continue to employ all persons who are at work at, or while either of those collieries shall continue on strike, shall not work at any other colliery in the Association shall be subject to be discharged from his engagement at the end of any day's work without previous notice."

Colliery enterprise is still rife in this locality. One of the most important coal concerns in this district is about to be formed into a limited liability company, and in this instance the new feature is introduced of not only taking over the collieries, but also the business of the firm that have hitherto been the owners. The firm is that of Messrs. Richard Power and Co., of Cardiff, Swansea, London, and Liverpool, and, in addition to taking a large interest in the company themselves, they guarantee a dividend of not less than 10 per cent. for five years. Mr. H. Russell Evans, of 52, Lombard street, London, and Newport, is bringing out the company.

A purse of 55l. has been presented to Mr. Strange by the workmen on his leaving the Ebbw Vale Works.

The Ebbw Vale Company are sinking two new pits, one for the purpose of working the upper seams of coal, and the other to work what is known as the old coal, which lies at a considerable depth.

An important change is about to be made at the Great Western Collieries, in the Rhondda Valley. Mr. J. Daniels, the manager, is leaving, and he has appointed three experienced workmen to examine the old workings, and their report has been very satisfactory.

SOCIETY OF ENGINEERS.—The first ordinary meeting of the society for the session will be held on Monday, when a paper will be read on "Mechanical Puddling," by Mr. Perry F. Nuresey.

DISTRICT UNDER THE CHARGE OF THOS. E. WALES, Esq.,
H.M. INSPECTOR OF MINES.

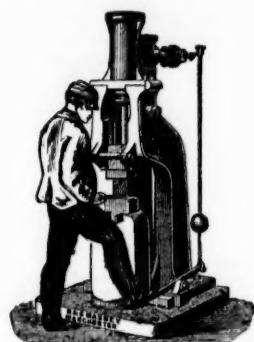
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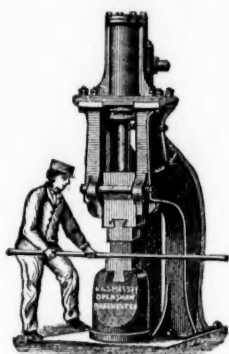
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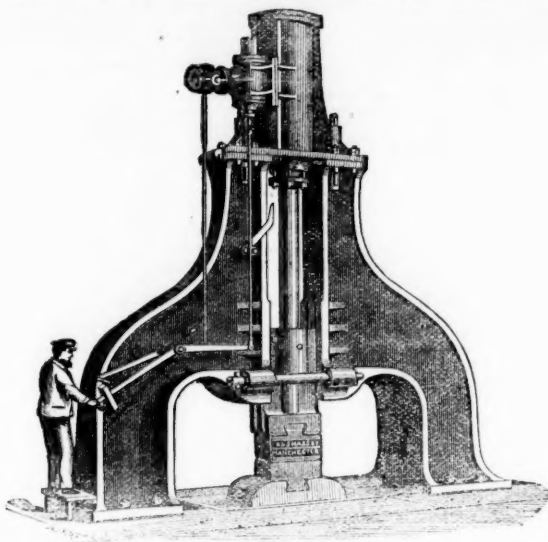
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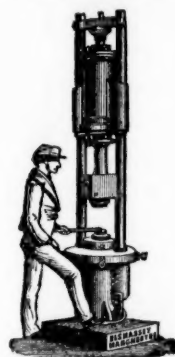
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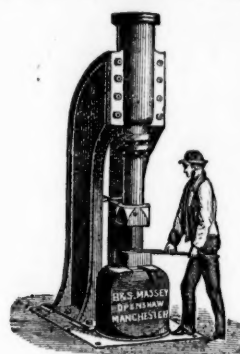
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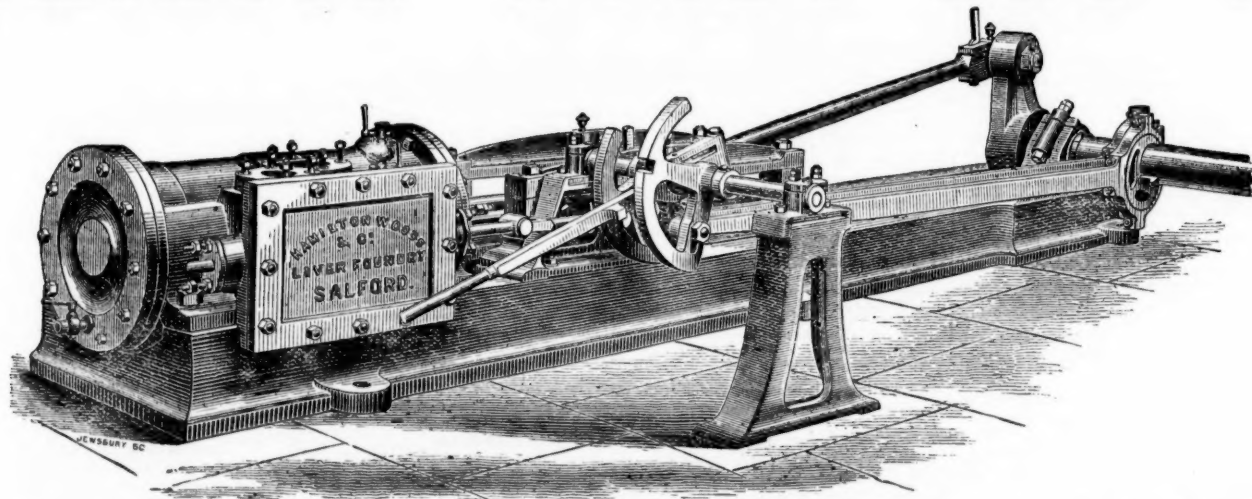
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50	Bowling Iron Co. [L.]	50	0 0.0	25	30		
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100	Brown, John, and Co. [L.]	70	0 0.	8 1/4	—		
100	Carmell and Co. [L.]	80	0 0.0	5	4		
20	Cannock and Huntingdon Coal [L.]	2	0 0.	—	—		
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10	Cardigan Steel and Wire Co. [L.]	5	10 0.	7 1/4	—		
10	Central Swedish Iron and Steel [L.]	10	0 0.0	—	—		
5	Chapel House Colliery	35	10 0.	1 1/4	1 1/4		
50	Charlton Iron Co. [L.]	40	0 0.	13	—		
50	Chatterley Iron Co. [L.]	10	0 0.0	4	—		
10	Chillingdon Iron Co. [L.]	1	0 0.	—	—		
1	Clee Hill Colliery Co. [L.]	7	10 0.	15 1/2	16		
1	Conssett Spanish Ore [L.]	1	0 0.0	7 1/2	10		
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20	Darlington Iron Co. [L.]	8	0 0.	1/2	dis. par		
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50	Davy Brothers [L.]	22	10 0.	18	18 1/4		
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10	Llannegnech Colliery Co. [L.]	—	—	—	2 dis.		
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Arbella Iron Ore Co. [L.]	10	0	0...	5
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10	Merry and Cuninghame [L.]	3	0	0	0	
6	Mersey Steel and Iron Co. [L.]	5	0	0	0	
6	Mold Argoe Colliery Co. [L.]	5	0	0	0	
10	Monkland Iron and Coal Co. [L.]	10	0	0	0	
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100	Mynydd-y-Glo and Blaiana (8 p.c. pref.)	100	0	0	0	
10	Neepsund Rolling Mills [L.]	3	0	0	0	
1	Nerbudda Coal and Iron	0	8	0	0	
20	New Sharlston Collieries [L.] Pref.	17	0	0	0	
10	Newport Abercrom Coal Co. [L.]	4	0	0	0	
10	Northampton Coal and Iron [L.]	8	0	0	0	
10	Northfield Iron Co. [L.]	6	0	0	0	
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50	Rhymney Iron Co. [L.]	50	0	0	0	
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100	Sheepbridge Iron and Coal [L.]	55	0	0	0	
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5	Silkestone Fall Colliery Co. [L.]	2	0	0	0	
20	Skerne Ironworks [L.]	50	0	0	0	
50	Someroostro Iron Co. [L.]	17	0	0	0	
20	South Wales Coal Co. [L.]	60	0	0	0	
100	Staveley Iron and Coal Co. [L.]	10	0	0	0	
10	Ditto	10	0	0	0	
10	Stranton Iron and Steel Co. [L.]	8	0	0	0	
20	South Cleveland Ironworks [L.]	200	0	0	0	
100	Thames Iron Company	5	0	0	0	
7½	Titanic Iron and Steel	10	0	0	0	
20	Tiverton Mining Co. [L.]	1	0	0	0	
1	United Bituminous Collieries [L.]	1	0	0	0	
10	Vancouver Coal [L.]	6	0	0	0	

Pickers, Sons, and Co. [L.]	100	0 0...
Welsh Ironworks Co. [L.]	50	0 0...

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20	British Wagon Co. [L.]	10	0 0..	45	45
10	Gloucester Wagon Co. [L.]	5	0 0..	3	3
10	Metropolitan Wagon Co. [L.]	50	0 0..	89	89
60	Midland Wagon Co. [L.]	20	0 14	—	—
20	North Central Wagon Co. [L.]	5	0 5	par.	—
10	North of England Wagon Co. [L.]	5	0 5	85	85
10	Parkgate Wagon Co. [L.]	10	0 0..	45	45
10	Scottish Wagon Co. [L.]	15	0 0..	45	45
10	Sheffield Wagon Co. [L.]	10	0 0..	45	45
10	Yorkshire Wagon Co. [L.]	10	0 0..	45	45

TELEGRAPH COMPANIES.					
"St."	Anglo-American	100	0 0..	815	815
10	Brazilian Submarine	10	0 10	75	75
10	Cuba, 10 per cent. preference	2	10 10	65	65
20	Direct United States Cable	10	0 0..	85	85
10	Eastern, 6 per cent. debentures	10	0 0..	8	8
10	East. Exten., Australia and China	10	0 0..	75	75
10	Globe Telegraph and Trust	10	0 10	115	115
10	Ditto, 8 per cent. preference	10	0 10	115	115
10	Great Northern	10	0 0..	15	15
25	Indo-European	25	0 0..	4	4
10	Mediterranean Extension	10	0 0..	105	105
10	Ditto, 8 per cent. preference	8	0 11	115	115
8	Reuters	8	0 0..	204	204
"St."	Submarine	100	0 0..	415	415
10	West India and Panama	10	0 0..	11	11
20	Western and Brazilian	20	0 0..	11	11
\$1000 Western Union, 7 per cent. Mort. Bonds		\$1000	1000	100	100

MISCELLANEOUS.					
10	Anglo-Mexican Mint	10	0 0..	55	55
2	Assoc. of Land Financials Co. [L.]	2	0 0..	19	19
25	Comp. Mined of Eng. (7 p. c. pref.)	25	0 0..	1/2	1/2
5	Diamond Rock Boring	5	0 0..	—	—
5	Gen. Phos. & Chem. Works Co. [L.]	5	0 0..	par	—
1	Glaisdale Whinstone Quarry	1	0 0..	8	8
10	Huntington Copper and Bul. Co.	10	0 0..	7	7
10	Silver Light (ord. sh.)	10	0 0..	275	275
10	Tharsia Sulphur and Copper Co.	10	0 0..	—	—

b, blende; cl, coal; c, copper; g, gold; l, lead; s, silver; z, zinc;
 s-l, silver-lead; f, tin; z, zinc.

* Limited Liability Companies: † quoted on the Stock Exchange
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